

AR45

ANNUAL REPORT 1978
FALCONBRIDGE NICKEL MINES LIMITED





SUMMARY	1978	1977
Financial:		
Earnings (loss) before extraordinary item	\$ 5,500,000	\$ (29,223,000)
— per convertible share	15¢	\$(6.23)
Earnings (loss) for the year	\$ 5,500,000	\$ (8,985,000)
— per convertible share	15¢	\$(2.15)
Dividends per convertible share		50¢
Working capital	\$ 251,488,000	\$ 252,411,000
Metal sales prices (per pound — U.S. currency):		
Refined nickel (average for year)	\$1.94	\$2.12
Ferronickel (average for year)	\$1.82	\$2.09
Copper (London Metal Exchange average for year)	62¢	59¢
Metal sales (pounds):		
Nickel in all forms	118,361,000	78,281,000
Copper (refined and in concentrate)	140,647,000	155,201,000

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ANNUAL MEETING OF SHAREHOLDERS

WEDNESDAY, APRIL 11, 1979

10:00 A.M. (TORONTO TIME)

COMMERCE HALL

CONCOURSE LEVEL, COMMERCE COURT

TORONTO, ONTARIO

COVER DESIGN —

Falconbridge Dominicana, C. por A. continued to produce ferronickel ingots in 1978 and began to produce a new product shape called Falconbridge "Ferrocones".



Offices

Corporate Offices — P.O. Box 40,
Commerce Court West, Toronto,
Ontario, Canada M5L 1B4
Telephone (416) 863-7000.
Telex 065-24211. Cables "Falconbrij"

Sudbury Operations, Main Office —
Falconbridge, Ontario P0M 1S0

Vancouver Office —
1112 West Pender Street,
Vancouver, B.C. V6E 2S1

Among Wholly-Owned Subsidiaries

Falconbridge Nikkelverk Aktieselskap

Kristiansand S., Norway
G. Lous — Chairman of the Board
E. Wigstol — General Manager

Wesfrob Mines Limited

1112 West Pender Street,
Vancouver, B.C. V6E 2S1
P. L. Munro — President
C. L. Stafford — Mine Manager,
Tasu, Queen Charlotte Islands, B.C.

Canadian Nickel Division

A. G. Slade — Vice-President
and Chief Officer

Ontario

Sudbury Operations —

Mines — Falconbridge, East*,
Strathcona, North*, Onaping*,
Lockerby*

Mine Under Development — Fraser

Concentrators — Falconbridge,
Strathcona, Fecunis*

Smelter — Falconbridge

(* Temporarily closed; on stand-by)

Marketing Subsidiaries

Falconbridge International Limited

Gibbons Building, Queen Street
Hamilton 5-31, Bermuda
Telephone 2-4700
Telex 3479

Falconbridge Canada

P.O. Box 40, Commerce Court West
Toronto, Ontario, Canada M5L 1B4
Telephone (416) 863-7000
Telex 065-24211

Falconbridge U.S. Incorporated

Seven Parkway Center
Suite 450
Borough of Greentree
Pittsburgh, Pennsylvania 15220
U.S.A.
Telephone (412) 922-0100
Telex 866507

Falconbridge Europe, S.A.

150 Chaussée de la Hulpe
1170 Brussels, Belgium
Telephone (02) 673-99-50
Telex 46-23280

Products

Products of Falconbridge Nickel Mines
Limited and affiliated companies include
nickel, copper, cobalt, gold, silver,
platinum, palladium, iridium, rhodium,
ruthenium, selenium, lead, iron ore, zinc,
cadmium, nepheline syenite, silica,
feldspar, mica, limestone aggregates,
liquid sulphur dioxide, carbon and high-
alloy steel castings, and other products
for consumer and industrial use.

Research Laboratories

Falconbridge Metallurgical Laboratories,
Richmond Hill, Ontario; Kristiansand S.,
Norway.

Exploration Offices

Toronto and Sudbury, Ontario; Quebec
City, Quebec; Vancouver, B.C.;
Winnipeg, Manitoba; St. John's,
Newfoundland; Santo Domingo,
Dominican Republic; Oslo, Norway;
Johannesburg, South Africa; Windhoek,
South West Africa; Manila, Philippines.

Solicitors

Tilley, Carson & Findlay, Toronto

Auditors

Clarkson, Gordon & Co., Toronto

Transfer Agents and Registrars

Crown Trust Company, Toronto,
Montreal, Vancouver and Calgary

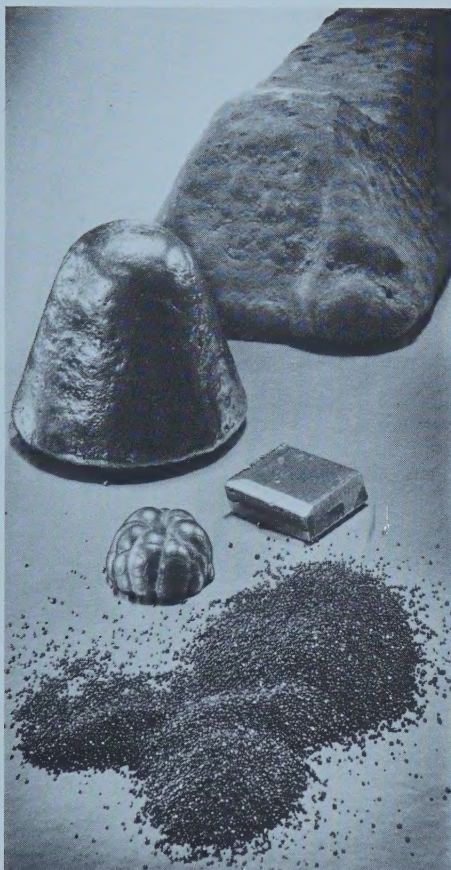
Registrar and Transfer Company,

New York and Jersey City, U.S.A.

Stock Exchanges

The shares of Falconbridge Nickel Mines
Limited are listed on the Toronto,
Montreal and Vancouver stock
exchanges.

The shares are also traded Over-the-
Counter in the United States. The
NASDAQ symbol is FALCF.



DIRECTOR EMERITUS

C. F. H. CARSON, Q.C.

BOARD OF DIRECTORS

JOHN B. CONNALLY,
Senior Partner, law firm of Vinson & Elkins

*MARSH A. COOPER,
President and Managing Director

†O. D. COWAN,
A director of a number of companies

W. G. DAHL,
Group Vice-President

†*NELSON M. DAVIS,
Chairman of the Board,
N. M. Davis Corporation Limited

B. R. DORSEY,
Chairman and Chief Executive Officer,
Resource Drilling, Inc.

RUSSELL E. HARRISON,
Chairman and Chief Executive Officer,
Canadian Imperial Bank of Commerce

E. L. HEALY,
President and Chief Executive Officer,
Mine-Met Consultants of Canada Limited

†ROBERT HEWITT,
Chairman,
Hewitt Equipment Limited

*W. F. JAMES,
Consulting geologist

H. B. KECK,
Chairman and Chief Executive Officer,
The Superior Oil Company

H. B. KECK, JR.,
Vice-President Administration,
First Los Angeles Bank

G. P. MITCHELL,
Group Vice-President

*J. E. REID,
President and Chief Operating Officer,
The Superior Oil Company

*Member of the Executive Committee

†Member of the Audit Committee

OFFICERS AND CORPORATE MANAGEMENT

J. E. REID,
Chairman of the Board

MARSH A. COOPER,
President and Managing Director

W. G. DAHL,
Group Vice-President

G. P. MITCHELL,
Group Vice-President

H. T. BERRY,
Vice-President Metallurgy and Research

I. H. KEITH,
Vice-President Ferronickel Division

J. D. KRANE,
Vice-President Corporate Affairs and Secretary

G. T. ROBERTSON,
Vice-President Personnel

J. L. MATTHEWS, Q.C.,
General Counsel and Assistant Secretary

H. L. HICKEY,
Director Public Relations

J. M. DONOVAN,
Controller

N. H. WITHERELL,
Treasurer

A. R. PASIEKA,
Director Mining Engineering and Research

PETER ZAHARUK,
Director General Engineering

P.O. BOX 40, COMMERCE COURT WEST, TORONTO, ONTARIO, CANADA M5L 1B4



Falconbridge FERROCONES, a small cast ferronickel shape designed for use by the stainless steel and foundry industries.

REPORT OF THE DIRECTORS TO THE SHAREHOLDERS

Highlights of 1978

During 1978 the nickel industry showed encouraging signs of recovery from the abnormally low levels of demand that have prevailed since 1975. The high inventories held by producers at the beginning of the year were significantly reduced due to decreased production and an encouraging improvement in demand. Severe competition continued in the marketplace, however, and this was reflected in a steady decline in nickel prices during the year.

As part of the planned curtailment for 1978, Sudbury Operations and the Norwegian refinery were shut down for extended vacation periods during July and August and the refinery operated throughout the year with a 20 per cent reduction in working hours. As a result of these measures production was reduced to approximately 50 per cent of capacity and Falconbridge inventories of nickel in all forms had declined by year end to 44,009,000 pounds from 78,262,000 pounds at the end of 1977. The decision to reduce nickel production, however, resulted in the loss of a significant amount of copper and cobalt production for which there are ready markets.

In January, 1979, employees at the refinery returned to normal working hours. Early in the same month the Company announced plans to increase production at Sudbury Operations by 10 per cent and to rehire during the first half of the year approximately 250 of the laid-off employees.

The Company's environmental improvement project, involving major revisions to the smelter facilities at Sudbury Operations, was substantially completed at a cost of \$78,794,000 to December 31, 1978. The acid plant and one of the two roaster-electric furnace lines were successfully put into operation in July. All Sudbury production since the summer shut-down

has been achieved with the one furnace line. The roaster gas from the smelter operation is treated in the acid plant to produce sulphuric acid and thereby reduce sulphur dioxide emissions to the atmosphere. It is a source of satisfaction to the Company that as a result of this new plant, emissions to the atmosphere from the smelter are now well within the limit allowed in the timetable established by the Ontario Government for the Company's operations. The second furnace will be made ready for operation during 1979 and kept on stand-by.

The Integrated Nickel Operations and all of the major subsidiary companies recorded increased profits during 1978 except Falconbridge Dominicana, C. por A., which recorded its first loss since the start-up of commercial operations in 1972.

Falconbridge Dominicana operated at an average of 45 per cent of capacity throughout the year because of the weak market demand for ferronickel and in order to reduce its inventories. The company's loss for the year resulted primarily from the low level of production and a substantial reduction in the net realized price for ferronickel. Total sales of ferronickel to Falconbridge Nickel Mines Limited in 1978 were 43,562,000 pounds of contained nickel compared with 45,477,000 pounds in 1977.

The earnings of Falconbridge Copper Limited in 1978 more than doubled from the 1977 level, due to increased operating efficiencies and substantially higher metal prices. Production of copper and zinc decreased slightly; however, gold production increased significantly due to higher tonnage taken from the recently opened Cooke Mine in the Opemiska Division. At year-end the company purchased an additional

interest in the Sturgeon Lake Joint Venture thereby increasing its participation from 67 per cent to 93.4 per cent. In the Lake Dufault Division, development work continued on the Corbet Mine which it is anticipated will start production in the latter part of 1979.

Consolidated sales and net earnings of Indusmin Limited were the highest in the company's history. Revenues at all of its Canadian mineral operations were at record levels, and the inclusion for the full year of the operation at Lawson-United Feldspar and Mineral Company in Spruce Pine, North Carolina (acquired in 1977), had a positive effect on both sales and earnings. Although sales of steel castings by Fahramet Limited were lower in 1978, this subsidiary reported a profit compared with a loss in 1977.

United Keno Hill Mines Limited experienced a good year with earnings and sales exceeding those of 1977 due mainly to increased production of lead and higher prices for lead and silver.

Consolidated Earnings

Consolidated earnings for the year 1978 were \$5,500,000 compared with a consolidated loss in 1977 of \$29,223,000 before an extraordinary gain of \$20,238,000 realized from the sale of shares of Alminex Limited. The loss in 1977 after the extraordinary item was \$8,985,000. After providing for preferred share dividends, the consolidated earnings in 1978 were equal to 15 cents per convertible share compared with a 1977 loss of \$6.23 per convertible share before the extraordinary gain and \$2.15 per convertible share after such gain. The low level of earnings in 1978 was attributable mainly to the general weakness in the demand for nickel products and severe price competition in the nickel industry.

The Integrated Nickel Operations contributed earnings of \$6,443,000 in 1978 compared with a loss of \$21,629,000 in the previous year. Sales of refined nickel were more than double the volume sold in 1977. Copper sales volume was 30 per cent lower than in 1977, reflecting the production cutbacks from Sudbury ores. Prices for nickel declined sharply during 1978 while copper and cobalt prices strengthened. Since most of the Company's production is sold in United States currency, the weakness of the Canadian dollar relative to the U.S. dollar continued to have a favourable impact on revenues. Notwithstanding the beneficial effect of such gains on

currency exchange, the selling price of nickel products in Canadian currency was sharply lower in 1978 than in the previous year. The unit costs of production at both the Sudbury Operations and the Norwegian Refinery have increased over those of 1977 because of lower levels of production, higher labour rates and the increased cost of fuel and supplies. The stronger Norwegian kroner had an additional unfavourable impact on refinery costs.

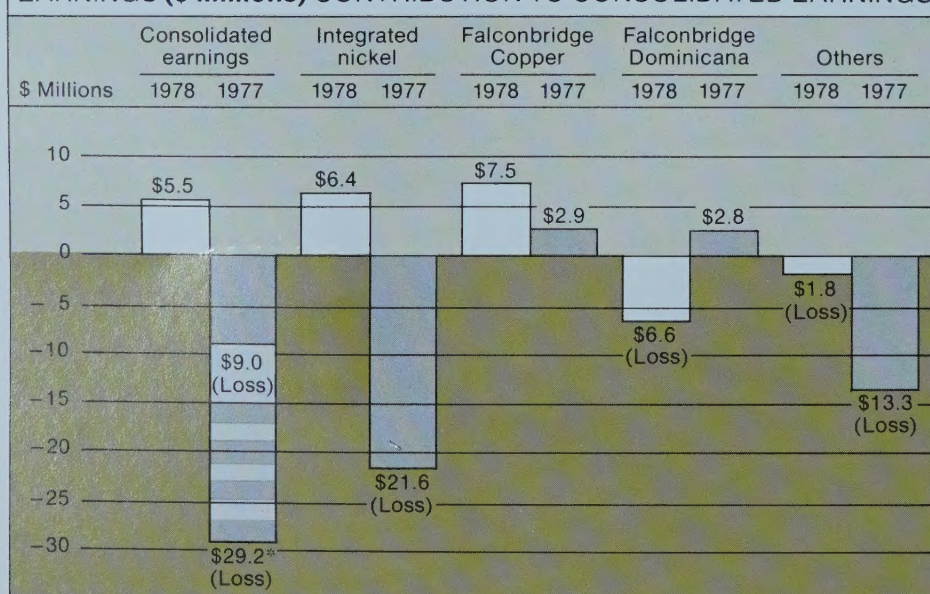
The contribution to consolidated earnings from subsidiary companies in 1978 increased from \$3,765,000 in 1977 to \$4,549,000. The 1978 contribution from Falconbridge Copper

Limited was \$7,498,000, an increase of \$4,585,000 over that of the previous year. Indusmin Limited contributed \$2,027,000, up \$776,000 from 1977. Westfrob Mines Limited contributed \$551,000 and Oamites Mining Company (Proprietary) Limited contributed \$405,000 compared with losses of \$2,211,000 and \$336,000 respectively in 1977. A loss of \$6,596,000 in respect of Falconbridge Dominicana is included in consolidated results compared with an earnings contribution of \$2,788,000 in 1977.

The contribution from associated companies, recorded on an equity basis, together with dividends and interest from other investments amounted to \$4,548,000, down \$1,241,000 from the previous year. The main reason for the decline was the absence of a contribution from Alminex Limited which was sold in 1977 and had contributed \$3,776,000 in that year. Dividends of \$1,469,000 were received in 1978, \$701,000 more than in 1977, and interest of \$1,008,000 was received from the Company's investment in debentures of Western Platinum Limited.

Unallocated corporate expenditures for the year, net of dividend and interest income, amounted to \$7,317,000, down \$8,986,000 from the previous year, largely as a result of non-recurring items in 1977.

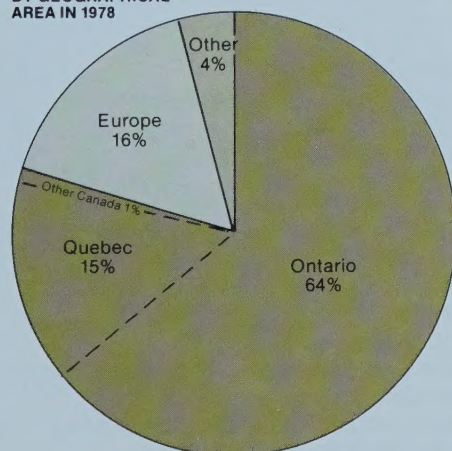
Further details of the financial results of individual operations and companies appear in Statement 4, page 26, and on pages 35 to 44.

EARNINGS (\$ Millions) CONTRIBUTION TO CONSOLIDATED EARNINGS


Working Capital

Consolidated working capital decreased by \$923,000 during 1978 to \$251,488,000 at December 31. Operations contributed \$45,213,000 to working capital, the reclassification of the current portion of Falconbridge Dominicana's long term debt increased working capital by \$7,828,000 and other sources contributed \$2,600,000. Working capital was decreased by expenditures on property, plant, equipment, development and preproduction of \$42,964,000 (including \$12,817,000 incurred in respect of the Smelter Environmental Improvement Program), dividend payments to the preference shareholder of \$4,732,000, the reduction of long-term debt by \$3,908,000 and other items amounting to \$4,960,000.

CONSOLIDATED CAPITAL EXPENDITURES BY GEOGRAPHICAL AREA IN 1978



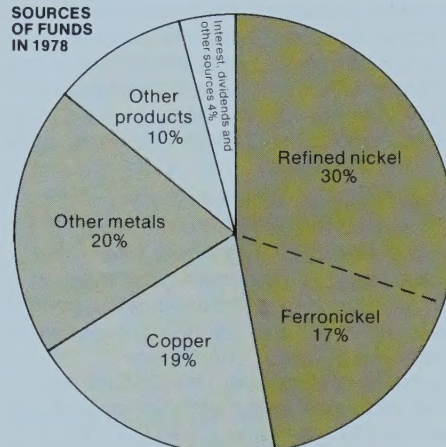
CONSOLIDATED CAPITAL EXPENDITURES BY GEOGRAPHICAL AREA

	1978		1977	
	\$ millions	%	\$ millions	%
Ontario	\$27.7	64%	\$57.6	71%
Canada total	\$34.5	80%	\$65.4	80%
Foreign	8.5	20	16.3	20
World total	\$43.0	100%	\$81.7	100%

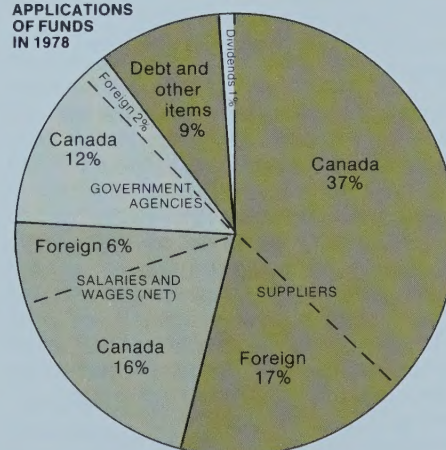
The following charts and table reflect the combined operating and capital sources and applications of working capital (funds) by major revenue and expenditure categories:

CONSOLIDATED SOURCES AND APPLICATIONS OF WORKING CAPITAL (FUNDS)

SOURCES OF FUNDS IN 1978



APPLICATIONS OF FUNDS IN 1978



	1978		1977	
	\$ millions	%	\$ millions	%
Sources of funds:				
Product sales—				
Refined nickel	\$158.6	29.9%	\$ 75.2	12.8%
Ferronickel	90.8	17.1	94.0	16.1
Nickel, all forms	249.4	47.0	169.2	28.9
Copper	102.2	19.3	94.3	16.1
Other metals (Zinc, cobalt and precious metals)	103.8	19.6	70.6	12.1
Other products	52.8	10.0	47.6	8.1
Total product sales	508.2	95.9	381.7	65.2
Borrowings and share issues	8.2	1.5	154.5	26.4
Other	13.6	2.6	48.9	8.4
Total	530.0	100.0%	585.1	100.0%
Applications of funds:				
Suppliers—				
Canada	175.3	36.5%	227.6	39.7%
Foreign	82.6	17.2	108.9	19.0
Total	257.9	53.7	336.5	58.7
Salaries and wages (net)—				
Canada	78.0	16.2	87.3	15.2
Foreign	30.0	6.3	32.6	5.7
Total	108.0	22.5	119.9	20.9
Government agencies—				
Canada	56.0	11.6	49.2	8.6
Foreign	10.5	2.2	13.4	2.4
Total	66.5	13.8	62.6	11.0
Debt and other items	41.4	8.6	48.7	8.5
Dividends to shareholders	6.5	1.4	5.2	0.9
Total	480.3	100.0%	572.9	100.0%
Net total	49.7		12.2	
Adjustments—				
Funds applied to increase metals inventories			(88.1)	
Reduction of prior years' metals inventory accumulations	50.6			
Working capital increase (decrease)	\$ (0.9)		\$100.3	

The total funds applied in 1978, before inventory and working capital adjustments, approximated \$480,000,000 of which \$258,000,000, 54 per cent, went to suppliers for operating supplies and fixed assets; and \$108,000,000, 22 per cent, represented take-home pay for employees. Taxes of various kinds to all levels of governments amounted to \$66,000,000, 14 per cent of total funds applied. Dividends paid to shareholders amounted to 1 per cent of funds applied. While approximately 82 per cent of sales revenues were earned overseas, only 30 per cent of all funds utilized went to non-Canadian sources.

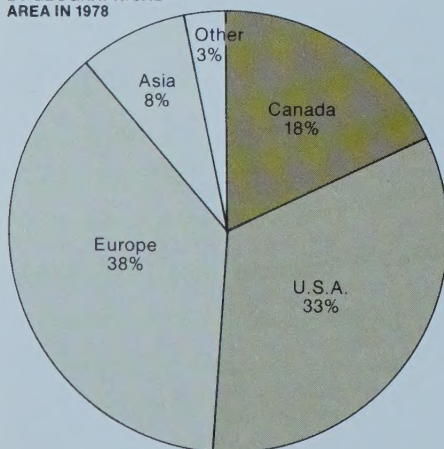
Return on Net Assets

The return on consolidated assets less current liabilities was 1.7 per cent, compared with a negative return on investment in the previous year resulting from the consolidated loss. Before a significant return on consolidated investment can be attained, considerably higher nickel prices, improved demand for ferronickel, and a return to normal production levels for nickel are required.

Marketing Summary

Sales of Falconbridge nickel in all forms during 1978, including nickel refined and delivered on a commission basis, totalled 118,361,000 pounds

CONSOLIDATED
SALES REVENUES
BY GEOGRAPHICAL
AREA IN 1978



CONSOLIDATED SALES REVENUES
BY GEOGRAPHICAL AREA

	1978		1977	
	\$ millions	%	\$ millions	%
Europe	\$194.6	38%	\$145.4	38%
U.S.A.	166.4	33	114.5	30
Others	54.1	11	15.3	4
Total foreign	415.1	82	275.2	72
Canada	93.1	18	106.5	28
World total	\$508.2	100%	\$381.7	100%

compared with 78,281,000 pounds in 1977. This sharp increase reflects the improvement in demand from the very low levels experienced in 1977.

In the United States, nickel demand remained firm due to increased activity in the aircraft industry and the attendant increase in the consumption of nickel alloys and specialty steels. An upturn in the plating sector reflected continued growth in the automotive industry. In Europe, the basic economy continued to show gradual improvement.

The highly competitive conditions experienced in 1977 carried forward through 1978. Although there was improvement in the demand for nickel, selling prices declined due to the large producer inventories and the continuing efforts of suppliers to maintain market share. The production of refined nickel in the non-Communist world in 1978 was about 930,000,000 pounds, 24 per cent below the level of 1977. It was the first year since 1974 in which producer shipments exceeded production.

Low prices prevailed throughout the year. The average selling price per pound by the Company for refined nickel in 1978 was U.S. \$1.94 compared with U.S. \$2.12 in 1977. For ferronickel the average selling price per pound was U.S. \$1.82 in 1978 compared with U.S. \$2.09 in 1977.

The London Metal Exchange price for copper advanced by approximately 5 per cent during 1978 to an average level of U.S. 62 cents per pound compared with the equivalent 1977 price of U.S. 59 cents per pound.

The rising demand for cobalt, coupled with the falling supply in the years 1974 through 1977, attributable primarily to reduced supply from African producers, led to soaring prices for cobalt in 1978. The producer price of cobalt rose from U.S. \$6.40 per

pound at the beginning of the year to U.S. \$20.00 per pound at year end.

Sales by the Company of metal products from the Integrated Nickel Operations and from the Ferronickel Operations were as follows:

	1978	1977
	(pounds)	
Refined nickel		
in all forms	74,884,000*	34,887,000*
Ferronickel	43,477,000	43,394,000
Copper	32,076,000*	44,949,000*
Cobalt	1,255,000*	1,494,000

* Includes metal refined and sold as agent for the owner.

Sales of copper concentrates by subsidiary companies in 1978 contained 108,571,000 pounds of copper, 1.5 per cent lower than the 1977 figure of 110,252,000 pounds. Sales of zinc contained in concentrate totalled 85,337,000 pounds in 1978, 4 per cent lower than the 1977 figure of 89,032,000 pounds.

Exploration

Consolidated exploration expenditures of Falconbridge and its subsidiary companies were \$7,662,000, a decrease of \$2,064,000 from the 1977 level. Expenditures by Falconbridge Nickel Mines Limited and its wholly-owned subsidiaries during 1978 were \$5,371,000, a decrease of \$2,785,000 from the 1977 level.

The outlay for exploration during 1978 was lower than in 1977 due to adverse economic conditions in the mining industry generally and the nickel sector in particular. Exploration expenditures in 1979 are expected to be at a higher level than those of 1978.

General exploration activities in Canada were directed from regional offices in Vancouver, Winnipeg, Sudbury, Timmins, Quebec City and St. John's. Falconbridge participated in joint venture programs with associated companies and others in

Newfoundland, Quebec, Manitoba and the Yukon Territory.

Falconbridge continued its participation as a minority partner in a major exploration program to evaluate a porphyry copper prospect in Chile. Drilling, preliminary metallurgical tests and other related studies carried out during the year gave encouraging results.

In southern Africa, the Company's exploration efforts in the Republic of Botswana have been accelerated in a search for economic mineral deposits.

Various prospects are being explored on grants held under special prospecting licences.

Field work related to an exploration program on nickel laterite deposits in the Zambales Mountains, Republic of the Philippines, continued during the year. This program has been undertaken under the terms of agreements with Global Mining Resources Inc., Global Marine Inc., and Benguet Consolidated Inc. Further work on the Zambales deposits is planned in 1979. Other prospective nickel laterite areas in Africa and South America will also be investigated.

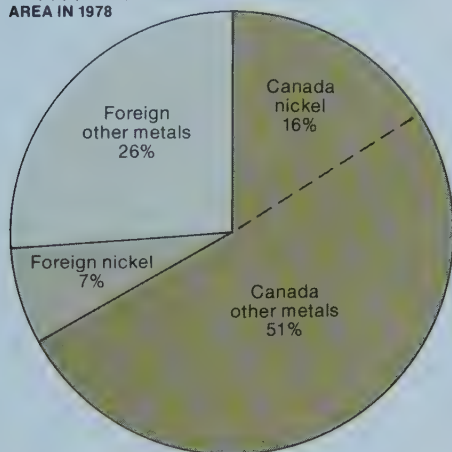
In Norway, the Company has concentrated its exploration efforts on evaluating nickel sulphide prospects in three separate areas.

the demands imposed by the increasingly competitive nature of present-day markets.

Mining research was primarily directed towards ground control, safety and improvement in mining methods and equipment with a view to reducing costs through improved productivity.

Falconbridge continued its financial support of the Mining Industry Research Organization of Canada. Field testing of improved miners' clothing, caps, lighting and respirators continued, with favourable results, in 1978.

CONSOLIDATED EXPLORATION EXPENDITURES BY GEOGRAPHICAL AREA IN 1978



CONSOLIDATED EXPLORATION EXPENDITURES BY GEOGRAPHICAL AREA

	1978		1977	
	\$ millions	%	\$ millions	%
Canada-Nickel	\$1.2	16%	\$3.0	31%
-Other metals	3.9	51	4.0	41
-Total	5.1	67	7.0	72
Foreign-Nickel	0.6	7	1.3	13
-Other metals	2.0	26	1.4	15
-Total	2.6	33	2.7	28
World -Nickel	1.8	23	4.3	44
-Other metals	5.9	77	5.4	56
-Total	\$7.7	100%	\$9.7	100%

Research and Development

Expenditures on research and development amounted to \$3,086,000 in 1978, compared with \$3,844,000 in the previous year. Nickel process research ranged from investigations directed to the successful start-up and optimization of roasting, electric furnace smelting and acid making in the new smelter at the Sudbury Operations, to the development of techniques for improving the homogeneity of plant feed at Falconbridge Dominicana. Laboratory projects for associated companies included development of methods of refining by-product arsenic and silver precipitates.

The increasing demand for cobalt prompted investigations into methods of improving recoveries from the Company's ores and of treating cobalt-bearing by-products from certain outside sources. By year end several promising techniques had been developed.

Product research centred on broadening the range of the Company's nickel products to satisfy

Environmental Control

The start-up of the Smelter Environmental Improvement Program facilities at Sudbury Operations in mid-1978 has resulted in a major reduction in sulphur dioxide emissions, as described earlier in this report.

The new tailings disposal and waste water treatment system for the Falconbridge mill-smelter area was operating before year end. This system will allow control of waste water quality within Provincial Government criteria and has the potential for safe storage of tailings for twenty years or more by staged increases to the height of the containment dams.

At Giant Yellowknife Mines Limited, the improved operation of the arsenic dust collection system continued to show reductions in the emission levels. Confirmation of these lower emission levels are provided by results of snow and air monitoring conducted by both Giant Yellowknife and Environment Canada.

Falconbridge is continuing its participation in three Federal-Provincial-Industrial Task Forces that are studying air and water emissions from smelters and similar facilities and the usable control technology. The objective is to recommend a basis for



*Magnified view of a NICKEL CROWN,
a new and improved form of
Falconbridge electrolytic nickel for use
in the electroplating industry.*

Canada-wide emission guidelines and regulations that will protect the environment and be economically acceptable to industry.

Fiftieth Anniversary

Falconbridge Nickel Mines Limited was incorporated under the laws of Ontario on August 28, 1928 and marked the observance of its Fiftieth Anniversary during 1978. The occasion was suitably recognized in corporate publications and through special programs for employees at various locations.

Shareholders

At December 31, 1978 there were 8,351 shareholders, of whom 6,367 were of Canadian registry holding 4,721,029 convertible shares. This represents 94 per cent of the 5,024,455 convertible shares outstanding after deduction of 45,483 shares held by subsidiaries. At the end of 1977 there were 9,150 shareholders of the outstanding convertible shares, of whom 6,997 were of Canadian registry holding 4,503,100 convertible shares representing 90 per cent ownership. In addition, the 3,000,000 preference shares with par value of \$25.00 each were held by one shareholder of Canadian registry.

Dividends

The directors declared dividends on the preference shares amounting to \$4,732,000. No dividends were declared on the Class A shares or the Class B shares during 1978 because of the necessity to conserve cash.

Organization

Mr. William I. Spencer, President of Citibank, N.A., and a director of the Company since 1970, did not stand for re-election as a director at the Annual Meeting of Shareholders held on April 11, 1978. Your directors expressed

their sincere gratitude and appreciation to Mr. Spencer for his wise counsel and his abiding interest in the Company's affairs during his years on the Board. Mr. Russell E. Harrison, Chairman and Chief Executive Officer of the Canadian Imperial Bank of Commerce, was nominated in place of Mr. Spencer and elected a director at the Shareholders' Meeting.

The business community and your directors were profoundly saddened by the passing of Mr. F. H. Brandi on August 18, and Mr. R. B. Fulton on August 19, 1978. Mr. Brandi had been a director of the Company since 1968 and, prior to his retirement, Chairman of Dillon, Read & Co. Inc. of New York. Mr. Fulton had been a director of the Company since 1975. The valuable contribution to the Company's affairs by Messrs. Brandi and Fulton has been gratefully acknowledged and recorded by their fellow directors.

To fill the vacancies created by the passing of Messrs. Brandi and Fulton, the directors elected Messrs. B. R. Dorsey and H. B. Keck, Jr. as directors of the Company. Mr. Dorsey is Chairman and Chief Executive Officer of Resource Drilling Inc., and Mr. Keck, Jr. is Vice-President Administration of the First Los Angeles Bank.

Mr. J. E. Reid was elected Chairman of the Board upon the resignation from that position of Mr. H. B. Keck, who had been Chairman since 1969. Mr. Keck continues as a director of the Company.

Mr. G. T. Robertson was appointed Vice-President Personnel of the Company. This is a new position which will involve personnel and industrial relations policies and the initiation of programs to support corporate goals and improve the effectiveness of the Company's human resources. Prior to joining Falconbridge, Mr. Robertson had been Senior Vice-President, Personnel of the Bank of Montreal.

Personnel

At the end of 1978, the Falconbridge group of companies had a total of 12,635 employees. During the year a number of collective agreements were successfully negotiated, none of which resulted in strikes or work disruptions.

In Sudbury Operations a major organizational development program was initiated to bring about further improvement of organizational effectiveness throughout the Sudbury complex. This will provide for the orderly planning and development of our personnel requirements in the Sudbury Operations.

Positive steps were taken in 1978 to improve the management of the Company's human resources. A major personnel and management development program was initiated, with the aim of strengthening the recruitment and development of high-potential personnel in the years ahead.

Appreciation

To all employees, shareholders, customers, contractors and suppliers, the directors record their sincere appreciation for the fine support and cooperation they have received during another very difficult year for the mining industry.

On behalf of the Board of Directors:



MARSH A. COOPER,
President and Managing Director.

Toronto, Ontario.
February 28, 1979.



Falconbridge electrolytic nickel squares produced by the company's Integrated Nickel Operations for a wide range of industrial uses in international markets.

CONSOLIDATED FINANCIAL STATEMENTS

FALCONBRIDGE NICKEL MINES LIMITED

Clarkson, Gordon & Co.

Chartered Accountants

Royal Trust Tower
P.O. Box 251, Toronto-Dominion Centre
Toronto, Canada, M5K 1J7

St. John's Halifax Saint John Québec Montreal
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AUDITORS' REPORT

To the Shareholders of
Falconbridge Nickel Mines Limited

We have examined the consolidated balance sheet of Falconbridge Nickel Mines Limited as at December 31, 1978 and the consolidated statements of earnings, retained earnings and changes in financial position for the year then ended. We have also examined the statement of investment in associated and other companies as at December 31, 1978 and the statement of supplementary information as at December 31, 1978 and for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, subject to the uncertainty as to recovery of certain deferred development and exploration expenditures as explained in note 9(c)(iv), these consolidated financial statements present fairly the financial position of the company as at December 31, 1978 and the results of its operations and the changes in its financial position for the year then ended, and the statement of investment in associated and other companies and the statement of supplementary information present fairly the information set forth therein, all in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada,
February 15, 1979.

Clarkson, Gordon & Co.

Chartered Accountants

ACCOUNTING POLICIES

The financial statements of Falconbridge Nickel Mines Limited have been prepared by management in accordance with accounting principles generally accepted in Canada, consistently applied. The financial information in this report is based on information available up to February 15, 1979 and presents the financial position and results of operations within the framework of the accounting policies summarized below:

A. Basis of consolidation and accounting standards

- (i) Falconbridge generally consolidates the financial statements of subsidiary companies (owned more than 50%), and accounts on an equity basis for effectively controlled companies. Those companies incorporated in foreign countries in which there are significant restrictions on the transfer of funds are accounted for on a cost basis;
- (ii) The differences between the interest in the book value of the net assets of a consolidated subsidiary and the carrying value of the investment are allocated to the subsidiary's asset accounts based on their fair values at the date of acquisition. For consolidated operating subsidiaries, the differences are depreciated, depleted or amortized in each case over the lesser of (i) the estimated life of the consolidated subsidiary's recoverable resources or (ii) a period of twenty-five years from the date of acquisition of the investment or the date the subsidiary commenced operations; and
- (iii) For consolidation purposes foreign subsidiaries' financial statements are restated to accord with the Company's accounting principles.

B. Translation of foreign currencies

- (i) Current assets and current liabilities are translated into Canadian dollars at approximate quoted rates of exchange at year-end;
- (ii) Items included in property, plant and equipment, other assets, and non-current liabilities are generally translated into Canadian dollars at rates of exchange prevailing when they were acquired or incurred;
- (iii) Revenues and expenses are translated into Canadian dollars at the approximate average monthly quoted rates of exchange, except that provisions for depreciation, depletion and amortization are translated at the rates used to translate the related assets; and
- (iv) On translation of foreign subsidiaries' financial statements for consolidation purposes, net unrealized gains are deferred and losses are reflected in earnings.

C. Revenue recognition

Revenues for the sale of refined metals, ferronickel, industrial minerals and metal castings are recorded in the accounts when legal title passes to the buyer.

Where metals contained in concentrate are sold under contracts, estimated revenues are recorded in the accounts during the month when the concentrates are produced. The estimated revenues may be subject to adjustment on final settlement or may be adjusted prior to final settlement, usually three or four months after the date of production, to reflect changes in metal market prices and weights and assays.

D. Valuation of inventories

Metals inventories are valued at the lower of cost or net realizable value. Cost includes direct labour and material costs as well as administrative expenses at the operating properties but excludes development, preproduction and depreciation write-offs. The cost of inventories derived from Falconbridge's ore is determined on a "last-in, first-out" basis, because of a fairly long production cycle; the cost of inventories derived from the subsidiaries' ore and other sources is determined on a "first-in, first-out" basis. The cost of supplies inventories is determined on an average cost basis.

E. Property, plant and equipment

- (i) All property, plant and equipment and related deferred development and preproduction expenditures are recorded at cost and include, where appropriate, the fair value adjustments referred to in policy A (ii) above;
- (ii) Falconbridge calculates depreciation on a straight-line basis at rates designed to amortize plant and equipment over the lesser of their useful lives or the lives of the producing mines to which they relate. For the year ended December 31, 1978, this resulted in a composite rate of 4.5% (1977 — 7.7%), based on the original cost of assets not yet fully depreciated. Generally the subsidiary companies calculate depreciation on a straight-line basis at rates varying from 5% to 25%. Depreciation is provided on the unit of production basis by Wesfrob Mines Limited and by Falconbridge Copper Limited for certain of its properties;
- (iii) Idle plant and equipment resulting from the temporary curtailment of operations continue to be depreciated. Care and maintenance costs during the standby period are expensed as incurred;
- (iv) Idle plant and equipment resulting from the termination of operations are carried at estimated salvage value. Upon sale or abandonment the cost of the fixed assets and the related accumulated depreciation are removed from the accounts and any gains or losses thereon are taken into earnings;
- (v) Depletion of properties is provided on a straight-line basis over a period equal to the lesser of the estimated life of the resources recoverable from the properties, or twenty-five years;
- (vi) Development and preproduction expenditures are deferred until the commencement of commercial production. These, together with certain subsequent development expenditures which are also deferred, are written off at rates designed to amortize the expenditures over periods not longer than the lives of the producing mines or properties; and
- (vii) Repairs and maintenance expenditures are charged to operations or development and preproduction; major betterments and replacements are capitalized.

F. Exploration

Exploration costs incurred to the date of establishing that a property has reserves which have the potential of being economically recoverable are charged against earnings; further costs are generally capitalized and then amortized as appropriate under policy E above.

G. Research and process development

Research and process development costs are charged against earnings as incurred.

H. Retirement plans

The costs of retirement plans are charged against earnings in the year premiums or required fundings are payable. Past service costs are generally being funded over periods of up to 15 years.

I. Income and mining taxes

All companies follow the deferral method of applying the tax allocation basis of accounting for income and mining taxes. Under this method timing differences between the period when income or expenses are reported for tax purposes and the period when they are recorded in the accounts result in provisions for deferred taxes. These are segregated in the deferred income and mining tax account at year-end.

Where appropriate, income taxes and withholding taxes are provided on the portion of any foreign subsidiaries' income which it is reasonable to assume will be transferred in a taxable distribution.

FALCONBRIDGE NICKEL MINES LIMITED

(Incorporated under the laws of Ontario)

CONSOLIDATED BALANCE SHEET — DECEMBER 31, 1978

(With comparative figures for 1977)

ASSETS

	1978 (000's)	1977 (000's)
CURRENT:		
Cash and temporary investments, at cost which approximates market value (note 10, page 22)	\$ 103,526	\$ 121,287
Accounts and metals settlements receivable (note 12, page 24)	127,383	82,781
Inventories of metals (note 8, page 21)	84,481	135,105
Inventories of supplies	33,549	33,206
	<u>348,939</u>	<u>372,379</u>
 PROPERTY, PLANT AND EQUIPMENT (note 9, page 21):		
Producing assets —		
Plant and equipment, at cost	598,055	509,332
Land and properties, at cost	23,455	20,528
	621,510	529,860
Less accumulated depreciation and depletion	345,301	321,588
	276,209	208,272
Development and preproduction expenditures, at cost less amounts written off	91,392	96,496
	367,601	304,768
Non-producing assets —		
Properties and projects, at cost less amounts written off	88,913	150,356
	456,514	455,124
 OTHER:		
Investment in associated and other companies (Statement 5, page 29)	55,242	54,390
Deposits, long-term accounts receivable and other assets, at cost	2,722	2,518
Debt discount and issue expenses, at cost less amounts written off	3,162	3,742
	61,126	60,650
	<u>\$ 866,579</u>	<u>\$ 888,153</u>

(See notes to consolidated financial statements)

STATEMENT 1

LIABILITIES AND SHAREHOLDERS' EQUITY

	1978 (000's)	1977 (000's)
CURRENT:		
Bank indebtedness	\$ 4,080	\$ 10,701
Accounts payable and accrued charges	56,926	60,998
Advance payments on sales contracts		13,229
Salaries and wages payable	11,680	13,338
Income and other taxes payable	18,927	8,450
Long-term debt maturing within one year	5,838	13,252
	<u>97,451</u>	<u>119,968</u>
LONG-TERM DEBT (note 10, page 22):		
Falconbridge Nickel Mines Limited	173,244	174,604
Falconbridge Dominicana, C. por A.	118,554	113,050
Other companies	3,205	3,740
	<u>295,003</u>	<u>291,394</u>
DEFERRED INCOME AND MINING TAXES (note 6, page 20)	23,687	30,153
MINORITY INTEREST	66,183	63,511
SHAREHOLDERS' EQUITY:		
Capital (note 11, page 24) —		
Authorized:		
3,000,000 Preference shares of the par value of \$25 each		
7,001,000 Convertible shares without par value		
1,000 Common shares without par value		
Issued:		
3,000,000 Preference shares	75,000	75,000
5,024,455 Convertible shares in 1978 (5,010,055 shares in 1977)	89,360	89,000
	<u>164,360</u>	<u>164,000</u>
Retained earnings (note 10, page 22)	223,074	222,306
	<u>387,434</u>	<u>386,306</u>
Less 45,483 convertible shares held by subsidiary companies, at cost	(3,179)	(3,179)
	<u>384,255</u>	<u>383,127</u>
On behalf of the Board:		
M. A. COOPER, Director		
W. F. JAMES, Director		
	<u>\$ 866,579</u>	<u>\$ 888,153</u>

FALCONBRIDGE NICKEL MINES LIMITED

STATEMENT 2

CONSOLIDATED STATEMENTS OF EARNINGS AND RETAINED EARNINGS

FOR THE YEAR ENDED DECEMBER 31, 1978

(With comparative figures for 1977)

CONSOLIDATED STATEMENT OF EARNINGS

(See additional details — Statement 4, page 26)

	1978 (000's)	1977 (000's)
Revenues	\$ 508,211	\$ 381,684
Operating expenses:		
Costs of metal and other product sales	376,492	288,943
Selling, general and administrative expenses	29,932	22,686
Development and preproduction expenditures written off (note 3, page 20)	11,731	13,808
Depreciation and depletion (note 3, page 20)	29,182	31,239
Other charges (note 2, page 20)	3,503	18,518
	450,840	375,194
Operating profit	57,371	6,490
Interest and amortization of debt expenses (net of interest income of \$8,068,000 in 1978 and \$5,974,000 in 1977)	25,622	22,247
Expenditures on exploration	7,662	9,726
Expenditures on research and process development	3,086	3,844
	36,370	35,817
	21,001	(29,327)
Income from investment in associated and other companies (Statement 5, page 29)	4,548	5,789
Earnings (loss) before taxes and other items	25,549	(23,538)
Income and mining taxes (note 6, page 20):		
Current	19,087	7,298
Deferred	(6,466)	(7,240)
	12,621	58
Earnings (loss) before minority interest and extraordinary item	12,928	(23,596)
Minority shareholders' interest in earnings of subsidiary companies	7,428	5,627
Earnings (loss) for the year before extraordinary item	5,500	(29,223)
Gain on sale of Alminex Limited shareholdings (net of taxes of \$5,706,000)		20,238
Earnings (loss) for the year	5,500	(8,985)
Dividend requirement on preference shares	4,732	1,692
Earnings (loss) applicable to convertible shares	\$ 768	\$ (10,677)
Earnings (loss) per convertible share (note 7, page 21):		
Before extraordinary item	15¢	\$ (6.23)
For the year	15¢	\$ (2.15)

CONSOLIDATED STATEMENT OF RETAINED EARNINGS

Retained earnings, beginning of year	\$ 222,306	\$ 235,465
Earnings (loss) for the year	5,500	(8,985)
	227,806	226,480
Dividends:		
Convertible shares (50¢ per share in 1977)		(2,482)
Preference shares (\$1.577 per share in 1978; 56.4¢ per share in 1977)	(4,732)	(1,692)
Retained earnings, end of year	\$ 223,074	\$ 222,306

(See notes to consolidated financial statements)

STATEMENT 3

CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION**FOR THE YEAR ENDED DECEMBER 31, 1978***(With comparative figures for 1977)*

	1978 (000's)	1977 (000's)
Sources of working capital (funds):		
From operations, being —		
Earnings (loss) for the year before extraordinary item	\$ 5,500	\$ (29,223)
Add (deduct) items entering into the determination of earnings which neither use nor provide funds:		
Depreciation and depletion	29,182	33,899
Development and preproduction expenditures written off	11,731	13,983
Amortization of debt expenses	269	269
Income and mining taxes deferred	(6,466)	(7,209)
Minority shareholders' interest in earnings of subsidiary companies	7,428	5,627
Gains on disposal of fixed assets	(1,198)	(1,287)
Gains on disposal and write-off of investments (net)	(245)	(78)
Interest in earnings of companies accounted for on an equity basis in excess of dividends received	(988)	(3,270)
Total from operations	45,213	12,711
Proceeds from disposal of investments	381	28,135
Proceeds from disposal of fixed assets	1,859	2,853
Issue of convertible shares, stock options exercised	360	37
Reclassification of long-term debt maturing within one year (note 10, page 22)	7,828	
Bank loans		79,418
Issue of preference shares		75,000
	55,641	198,154
Applications of working capital:		
Property, plant and equipment expenditures	29,197	61,387
Development and preproduction expenditures	13,767	20,314
Dividend payments to preference shareholder	4,732	1,692
Changes in minority interest, including dividends paid by consolidated subsidiary companies of \$1,750,000 in 1978 (\$1,007,000 in 1977)	4,756	973
Decrease in long-term debt	3,908	11,739
Increase (decrease) in other non-current assets	204	(774)
Dividend payments to convertible shareholders		2,482
Increase in investment in associated and other companies		13
	56,564	97,826
Increase (decrease) in working capital during the year	\$ (923)	\$ 100,328
Changes in components of working capital:		
Increase (decrease) in current assets —		
Cash and temporary investments	\$ (17,761)	\$ 72,265
Accounts and metal settlements receivable	44,602	(39,879)
Inventories	(50,281)	87,402
	(23,440)	119,788
Increase (decrease) in current liabilities —		
Bank indebtedness	(6,621)	1,554
Long-term debt maturing within one year	(7,414)	(17,518)
Other current liabilities	(8,482)	35,424
	(22,517)	19,460
Increase (decrease) in working capital during the year	(923)	100,328
Working capital, beginning of year	252,411	152,083
Working capital, end of year	\$ 251,488	\$ 252,411

(See notes to consolidated financial statements)

FALCONBRIDGE NICKEL MINES LIMITED

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

DECEMBER 31, 1978

1. Accounting policies

The principal accounting policies followed by Falconbridge and its subsidiary companies are detailed under the caption "Accounting Policies" on page 15.

2. Other charges

Continuing costs incurred during the extended summer shutdown at the Integrated nickel's Sudbury and Norwegian operations amounted to \$3,503,000 in 1978 (1977 — \$2,431,000). In 1977, other charges also included the following: \$7,958,000 unfavourable price adjustments in respect of 1976 revenues; costs, totalling \$3,991,000, for mining projects considered not recoverable and for mine shutdown costs; and production curtailment expenditures of \$4,138,000 related to placing certain properties on a standby basis.

3. Depreciation, depletion, development and preproduction write-offs

The write-off rates were adjusted on July 1, 1977 to reflect revised estimates of the economic lives of the Company's assets. Had the revised estimates been applied as at the beginning of the preceding year, the 1977 depreciation, depletion, development and preproduction write-offs would have been \$1,479,000 lower.

Amortization of the Company's new smelter environmental improvement project at Sudbury commenced in September, 1978 and resulted in additional charges against earnings of \$1,047,000.

4. Foreign exchange translation

(a) If translated into Canadian dollars at year-end rates of exchange long-term debt would increase by \$33,567,000 to \$328,570,000. This change is not necessarily indicative of the amount repayable when the obligations are retired.

(b) Realized exchange gains on foreign currency transactions amounting to \$28,000 in 1978 (1977 — \$1,298,000) have been recorded in earnings; net unrealized gains on translation of foreign subsidiaries' financial statements for consolidation purposes, amounting to \$12,729,000 at December 31, 1978 (1977 — \$6,304,000), have been deferred and included in accounts payable and accrued charges.

5. Retirement plans

The Company and certain of its subsidiaries maintain retirement plans providing retirement, death and termination benefits for substantially all salaried and hourly rated employees.

Total pension expense for the year was \$9,741,000 (1977 — \$11,318,000) including past service costs of \$4,584,000 (1977 — \$5,555,000). Based on the most recent actuarial evaluation, the unfunded past service costs for all pension plans in effect at December 31, 1978 are approximately \$32,500,000 (1977 — \$37,500,000) including \$18,000,000 (1977 — \$21,500,000) which is computed to have vested. While the companies have no legal liability with regard to the past service cost, including that portion which has vested, the companies present intention is to discharge such unfunded past service costs over periods of up to 15 years.

6. Income and mining taxes

To date certain amortization, depreciation and other expenditures of approximately \$49,000,000 charged to expense in the Company's accounts, but not claimed for tax purposes, are available to reduce taxable incomes of future years. This amount gives rise to a deferred tax debit which has not been recorded in the accounts.

For 1978 the difference between the amount of the reported consolidated provision for income and mining taxes and the amount computed by multiplying the earnings before taxes by the Company's applicable tax rates is as follows —

	Canadian taxes			
	Federal and provincial income taxes	Provincial mining taxes	Foreign taxes	Total
	(000's)	(000's)	(000's)	(000's)
Earnings (loss) before taxes	\$ 38,022	\$ 38,022	\$(12,473)	\$ 25,549
Company's tax rates	49%	18%*	49%	
Earnings (loss) before taxes multiplied by the Company's tax rates ..	\$ 18,631	\$ 6,844	\$ (6,112)	
Taxes reported in accounts	10,590	7,257	(5,226)	\$ 12,621
Increase (decrease) to be reconciled	\$ (8,041)	\$ 413	\$ 886	
Reconciliation —				
(1) Non-claimable expenses	\$ 660	\$ 2,110	\$ 163	
(2) Resource, depletion, processing and inventory allowances	(11,546)	(3,402)		
(3) Adjustments because of differences in companies' tax rates ..	(2,119)	1,126	723	
(4) Increase in unrecorded deferred tax debit	2,384			
(5) Inter-company profits relating to inventories	2,580	579		
	\$ (8,041)	\$ 413	\$ 886	

* Average determined from the graduated scale which ranges from 0% to 40%.

Falconbridge Dominicana, C. por A. (Falcondo), a subsidiary company, has received income tax assessments for the 1972 and 1973 fiscal years approximating Cdn. \$5,700,000. Falcondo is presently appealing these assessments and, based on the opinion of management and counsel, the Company has not provided for and believes that there will be no material adjustments required to the consolidated accounts.

7. Earnings (loss) per convertible share

Earnings (loss) per convertible share have been computed using the weighted average number of shares outstanding (excluding shares held by subsidiary companies). Inclusion in the earnings (loss) per share computation of shares subject to issue under outstanding options (see note 11 below) would produce substantially the same results.

The preference shareholder's prior claim on earnings has been deducted for purposes of this calculation.

8. Inventories of metals

Consolidated metal inventories consist of the following:

	1978		1977	
	Metals in process (000's)	Finished metals (000's)	Metals in process (000's)	Finished metals (000's)
Derived from:				
Company's ore	\$ 14,890	\$ 43,410	\$ 17,794	\$ 71,336
Subsidiaries	4,240	14,021	4,190	29,654
Other sources	7,039	881	6,683	5,448
	<u>\$ 26,169</u>	<u>\$ 58,312</u>	<u>\$ 28,667</u>	<u>\$106,438</u>
	<u>\$ 84,481</u>		<u>\$135,105</u>	

Inventories derived from the Company's ore are valued on the "last-in, first-out" basis. If these inventories were valued at current cost the December 31, 1978 inventories of metals value on the consolidated balance sheet would increase by approximately \$34,982,000 (1977 — \$43,982,000).

The inventory of finished nickel in all forms totalled 44,009,000 pounds at December 31, 1978 (1977 — 78,262,000 pounds).

9. Property, plant and equipment

(a) The following table reflects the net book value of the consolidated property, plant and equipment on a functional basis (See note 3 of the notes to statement of supplementary information, page 28).

	1978			1977		
	Cost (000's)	Accumulated depreciation and depletion (000's)	Net book value (000's)	Cost (000's)	Accumulated depreciation and depletion (000's)	Net book value (000's)
Property, plant and equipment:						
Producing assets —						
Plant and equipment:						
Mines, mining plants and ancillary mining assets	\$368,707	\$224,958	\$143,749	\$365,533	\$209,187	\$156,346
Smelter (i)	100,369	23,581	76,788	24,381	22,073	2,308
Refinery	81,016	52,329	28,687	70,808	47,937	22,871
Townsites and other company housing	16,720	9,712	7,008	17,926	10,267	7,659
Transportation assets and facilities	9,842	9,383	459	9,840	8,576	1,264
Other	21,401	11,829	9,572	20,844	11,110	9,734
	<u>598,055</u>	<u>331,792</u>	<u>266,263</u>	<u>509,332</u>	<u>309,150</u>	<u>200,182</u>
Properties	21,702	13,509	8,193	18,750	12,438	6,312
Land	1,753		1,753	1,778		1,778
	<u>23,455</u>	<u>13,509</u>	<u>9,946</u>	<u>20,528</u>	<u>12,438</u>	<u>8,090</u>
	<u>621,510</u>	<u>345,301</u>	<u>276,209</u>	<u>529,860</u>	<u>321,588</u>	<u>208,272</u>
Non-producing assets (i)	57,932	26,977	30,955	124,052	24,761	99,291
	<u>\$679,442</u>	<u>\$372,278</u>	<u>\$307,164</u>	<u>\$653,912</u>	<u>\$346,349</u>	<u>\$307,563</u>
Development and preproduction expenditures:						
Producing assets			91,392			96,496
Non-producing assets (i)			57,958			51,065
			<u>149,350</u>			<u>147,561</u>
			<u>\$456,514</u>			<u>\$455,124</u>

FALCONBRIDGE NICKEL MINES LIMITED

- (i) In 1978 the Company's smelter environmental improvement project was reclassified from the non-producing to producing asset balance sheet classification, the preproduction expenditures being included with plant and equipment.
- (b) As a result of production curtailments in the Integrated nickel operations, certain property, plant and equipment and the related preproduction and development expenditures, with a net aggregate carrying value of approximately \$63,000,000 have been placed on standby. The appropriate care and maintenance is being provided during the standby period to ensure the productive capacity of these assets will not be impaired.
- (c) Non-producing assets do not include the assets placed on a standby basis (referred to in note (b) above) but include the following:

Company and project	1978 (000's)	1977 (000's)
Falconbridge Nickel Mines Limited —		
Smelter environmental improvement project —		
Smelter (i)		\$ 51,824
Acid plant (i)		14,153
Fraser mine (ii)	\$ 20,896	16,350
Other projects (iii)	6,391	6,615
Falconbridge Copper Limited —		
Corbet mine (ii)	16,437	12,251
Falconbridge Nikkelverk Aktieselskap —		
Process revision program (ii)	2,377	6,060
New Quebec Raglan Mines Limited —		
Subsidiary's Cape Smith-Wakeham Bay properties (iv)	34,042	33,983
Other subsidiary companies' projects (iii)	8,770	9,120
	<u>\$ 88,913</u>	<u>\$ 150,356</u>

- (i) Began commercial production in September, 1978, reclassified from non-producing to appropriate producing assets balance sheet classifications.
- (ii) In the preproduction stage.
- (iii) Includes the costs related to certain projects upon which further work has been suspended pending a more favourable economic climate. The Company believes there is reasonable expectation that these costs will be recovered.
- (iv) Exploration, development and other expenditures relating to New Quebec Raglan Mines Limited (a 68.3% owned subsidiary) and its wholly-owned subsidiary company, Raglan Quebec Mines Limited, incurred in the development of the latter company's Cape Smith-Wakeham Bay properties.
- Development work on these properties was suspended in 1971. Feasibility studies indicate that recovery of these costs through future mining operations is dependent upon (a) substantial increases in the present world nickel prices; (b) the ability to raise sufficient capital financing; (c) the successful development of an economic mining operation; (d) marketing of production; and (e) maintaining the permits and licences in good standing. Because of the world's current over-supply of nickel it cannot be predicted with certainty when the expenditures on the properties will be recoverable by charges against income from future mining operations.

10. Long-term debt

A. Details of long-term debt are as follows:

	1978 (000's)	1977 (000's)
(i) Falconbridge Nickel Mines Limited		
7.75% Sinking fund debentures maturing February, 1991 (a)	\$ 46,250	\$ 47,500
8.85% Sinking fund debentures maturing May, 1996 (U.S. \$50,000,000) (b)	51,094	51,094
Bank loan due August 31, 1982 (12% at December 31, 1978) (c)	75,900	75,900
Mortgages on Company housing and other obligations		110
Total (1978 net of \$1,250,000 maturing within one year)	<u>\$ 173,244</u>	<u>\$ 174,604</u>

- (a) The Company is required to make sinking fund payments sufficient to retire \$1,250,000 principal amount of the 7.75% debentures in each of the years 1979 to 1990.
- (b) No portion of the principal is due on the 8.85% debentures until 1981 when the Company is required to commence sinking fund payments sufficient to retire U.S. \$3,000,000 principal amount of debentures in each of the years 1981 to 1995.

- (c) The bank loan is part of a line of credit of \$80,000,000 extended by a Canadian bank. Interest is payable monthly at the rate of $\frac{1}{2}$ of 1% (reduced to $\frac{1}{4}$ of 1% effective January 3, 1979) over the bank's minimum commercial lending rate as may be established from time to time during the term of the loan. If in the opinion of the bank there is any material adverse change in the Company's operations or financial position the \$75,900,000 outstanding loan may, at the option of the bank, become immediately due and payable.

(ii) **Falconbridge Dominicana, C. por A. (Falcondo)** (RD\$1 equals U.S.\$1)

(a) Due to Loma Corporation (Loma)* (Payable in U.S. currency) —		
8.73% (1977 — 8½%) Series C demand mortgage notes**	RD\$ 68,570	RD\$ 68,570
8½% Series D demand subordinated notes	34,000	34,000
	<u>102,570</u>	<u>102,570</u>

* Payment will only be demanded under certain specified circumstances, the most significant being to meet payments due on notes of Loma (a U.S. financing company) issued in the same principal amounts and at the same interest rates as the above demand notes, as follows:

8.73% (1977 — 8½%) Series C secured sinking fund notes, due in semi-annual payments of U.S.\$3,810,000 1980 to 1986 inclusive**; and

8½% Series D guaranteed sinking fund notes, due in semi-annual payments of U.S.\$3,400,000 1987 to 1991 inclusive.

** In consideration of an increase in the interest rate from 8½% to 8.73% over the remaining life of the notes Falcondo arranged, late in the first half of 1978, with Loma to defer the 1978 and 1979 semi-annual principal payments aggregating U.S. \$15,240,000. Commencing in 1981, this deferment will become due in twelve semi-annual instalments of U.S. \$1,270,000 in addition to the regularly scheduled principal repayments.

(b) Due to International Bank for Reconstruction and Development —		
7% Loans, due semi-annually to 1984, payable in various currencies ..	19,953	19,756
	<u>122,523</u>	<u>122,326</u>
(c) Company housing —		
9½% Mortgages on company houses repayable monthly to 1993 in Dominican Republic currency	2,057	2,137
	<u>124,580</u>	<u>124,463</u>
Less long-term debt maturing within one year	<u>3,413</u>	<u>10,522</u>
Total — As reported by Falcondo in Dominican Republic currency, translated at year-end rates of exchange	RD\$ 121,167	RD\$ 113,941
Total — Expressed in Canadian currency and reflecting the Company's translation policy (1978 net of \$4,048,000 maturing within one year) ..	<u>\$ 118,554</u>	<u>\$ 113,050</u>

(iii) **Other companies —**

Various maturity dates and interest rates		
Total (1978 net of \$540,000 maturing within one year)	<u>\$ 3,205</u>	<u>\$ 3,740</u>

(iv) **Maturity and sinking fund requirements**

Maturity and sinking fund requirements (stated at 1978 year-end rates of exchange) for the next five years are as follows:

1979 — \$ 5,838,000	1982 — \$97,571,000*
1980 — \$14,840,000	1983 — \$21,684,000
1981 — \$21,539,000	

* Includes Company bank loan repayment of \$75,900,000.

B. Guarantees, covenants and restrictions:

- (i) Falconbridge Nickel Mines Limited (Falconbridge) has guaranteed portions of the long-term debt of Falconbridge Dominicana, C. por A. (Falcondo), details of which are as follows —

- (a) All loans are secured by a first mortgage on the assets of Falcondo, which have a net aggregate carrying value of RD \$167,804,000 at December 31, 1978, and by a contract under which Falconbridge has agreed to buy all ferronickel of commercial value produced by Falcondo. Falconbridge is also obligated to

FALCONBRIDGE NICKEL MINES LIMITED

provide 60% of the funds required by Falcondo to enable it to meet its operating costs and debt service obligations in the event receipts from the sale of ferronickel produced by Falcondo and other receipts are insufficient for that purpose. The loans from Loma Corporation are covered by a specific risk insurance issued by the Overseas Private Investment Corporation.

- (b) Falconbridge has pledged all of its holdings of its shares of Falcondo against repayment of these loans, other than the mortgages on company housing and the subordinated portion of U.S. \$34,000,000. In addition, Falconbridge has made a direct guarantee for repayment of 60% of this subordinated portion of the loan.
- (c) In accordance with the terms of the loan agreements, funds of \$2,992,000 (1977 — \$10,204,000) (included with cash and temporary investments) are on deposit with the Trustee for use in paying current debt service and operating expenses of Falcondo.
- (ii) During the period that the Falcondo loans are outstanding, there are certain restrictions placed on the amount and nature of borrowing that Falconbridge may undertake. Covenants given by Falconbridge in this respect are substantially the same (other than the restriction on the payment of dividends) as those given by Falconbridge under its 8.85% debentures which include limitations as to:
 - (a) The amount of dividends which may be paid by Falconbridge (see (iii) below);
 - (b) The assumption of additional debt; and
 - (c) Guarantees which it may give on certain indebtedness of its subsidiary and other companies.
- (iii) At December 31, 1978, the portion of retained earnings restricted under the 8.85% debenture covenants and not available for dividend payment, share repurchase and preference share redemption was \$95,779,000 (1977 — \$96,139,000).

11. Capital

The issued convertible shares are summarized below:

	December 31, 1978	December 31, 1977
Class A shares	4,864,496	4,858,519
Class B shares	159,959	151,536
	5,024,455	5,010,055
Less Class A shares held by subsidiary companies	45,483	45,483
	<u>4,978,972</u>	<u>4,964,572</u>

Class A and Class B shares are inter-convertible at any time and are similar in all respects, including dividend rights. For 1978 and prior years tax deferred dividends on the Class B shares could be paid out of either or both "tax paid undistributed surplus on hand" or "1971 capital surplus on hand" as defined in the Income Tax Act of Canada. An amendment to the Tax Act prohibits payments of such dividends after December 31, 1978.

During 1978, 14,400 Class A shares were issued for \$25.00 per share under the stock option plan available to employees. The plan expired on December 19, 1978; however, under the terms of the plan options on 300 shares remain open until May 17, 1979.

The 3,000,000 Variable Rate Cumulative Redeemable Preference Shares, Series "A", which were issued in 1977 to a Canadian bank, have a par value of \$25.00 each and must be redeemed, at their par value, in August 1984 or may be redeemed earlier at the Company's option upon giving 30 days notice. The shares have a cumulative variable dividend rate calculated on a quarterly basis, equal to one-half of the bank's minimum lending rate plus 1.5 per cent; and the dividend rate was 7.25 per cent at December 31, 1978.

The preference shareholder has the right to appoint two members to the Board of Directors if dividends on the Preference Shares fall eight quarterly payments in arrears. Dividends on the Preference Shares have never been in arrears.

12. Commitments and contingent liabilities

- (a) The following 1977 commitments and contingent liabilities were generally resolved in 1978:
 - (i) The environmental improvement project involving major revisions to the Company's smelting facilities at its Sudbury operations was substantially completed at a cost of \$78,794,000 to December 31, 1978. The smelter's emissions are below the level in the Ontario Government's order for this date (see (c) (iii) below). Approximately \$2,500,000 remains to be spent to complete a second furnace (in 1979) and to provide further in-plant environmental improvement;
 - (ii) The Ontario Government has removed the time constraints relating to the deduction of processing costs incurred outside of Canada in computing profits subject to Mining Tax. Previous Government Regulations only permitted the Company to deduct the operating costs of its Norwegian refinery to December 31, 1978; and

- (iii) The 1976 court-appointed referee's termination pay award to the employees who were laid off at Sudbury operations in late 1975 was invalidated by the Divisional Court and Ontario Court of Appeal. Application to appeal to the Supreme Court of Canada had not been made by the Union up to February 15, 1979.
- (b) There are commitments outstanding at December 31, 1978 aggregating approximately \$1,100,000 in connection with capital expenditure programs.
- (c) The following directives from the Ontario Government are under continuing study and discussion with government officials:
 - (i) Construction of Canadian refining facilities;
 - (ii) Exemption, until December 31, 1979, from a requirement to process in Canada ores mined from certain properties of the Company in Ontario, such exemption being limited to the quantity of nickel-copper matte capable of producing not more than 85,000,000 pounds of nickel per year; and
 - (iii) The submission of plans, during 1980, to comply with additional environmental controls related to smelter emissions at the Sudbury operations by December 31, 1983.

Pending completion of such discussions, it is not practicable to estimate the potential costs arising from these directives.

- (d) During 1978 and 1977 a portion of accounts receivable was either sold without recourse or discounted with recourse. The cost, which was charged against earnings, amounted to \$1,705,000 in 1978 (1977 — \$3,185,000). At December 31, 1978 the Company has a contingent liability of U.S. \$16,610,000 in respect of discounted bills of exchange drawn on its accounts receivable.

13. Remuneration of directors and senior officers

Charges included in the consolidated statement of earnings for remuneration paid or payable to directors and senior officers of the Company, as defined under the Business Corporations Act of Ontario, amounted to \$1,249,000 (1977 — \$1,344,000).

14. Anti-inflation program

Effective October 14, 1975 the Federal Government passed the Anti-Inflation Act and subsequently issued Regulations which were phased out in 1978. Under this legislation the Company and its Canadian subsidiaries were subject to mandatory compliance with controls on prices, profit margins, employee compensation and shareholder dividends. The Company and its Canadian subsidiaries believe they have complied with these controls.

FALCONBRIDGE NICKEL MINES LIMITED

STATEMENT OF SUPPLEMENTARY INFORMATION *(Thousands of dollars)*

	December 31, 1978						
% ownership	Integrated nickel operations (100%) (note 2)	Unallocated corporate (100%) (note 2)	Falconbridge Copper Limited (50.2%) (note 3)	Falconbridge Dominicana, C. por A. (65.7%) (note 3)	Indusmin Limited (69.0%)	Oamites Mining Company (Proprietary) Limited (74.9%)	Westrob Mines Limited (100%)
OPERATIONS (note 3):							
Revenues	\$ 209,915	\$ 2,021	\$ 132,429	\$ 89,469	\$ 46,686	\$ 13,380	\$ 13,22
Operating expenses —							
Costs of metal and other product sales	159,234		87,443	76,092	32,665	10,079	10,85
Selling, general and administrative expenses	14,231	3,354	1,050	6,776	5,235	1,313	6
Development and preproduction expenditures written off	4,282		4,459	2,844	30	99	52
Depreciation and depletion	12,006	540	3,816	7,621	2,901	883	89
Other charges	3,503						
	<u>193,256</u>	<u>3,894</u>	<u>96,768</u>	<u>93,333</u>	<u>40,831</u>	<u>12,374</u>	<u>12,33</u>
Operating profit (loss)	<u>16,659</u>	<u>(1,873)</u>	<u>35,661</u>	<u>(3,864)</u>	<u>5,855</u>	<u>1,006</u>	<u>89</u>
Interest and amortization of debt expenses (net)	7,176	3,588	(1,366)	13,825	815	51	
Expenditures on exploration	1,215	3,515	2,163	82	7		34
Expenditures on research and process development	3,006				132		
	<u>11,397</u>	<u>7,103</u>	<u>797</u>	<u>13,907</u>	<u>954</u>	<u>51</u>	<u>34</u>
Earnings (loss) before investment income and taxes	5,262	(8,976)	34,864	(17,771)	4,901	955	54
Investment income		3,763					
Earnings (loss) before taxes	5,262	(5,213)	34,864	(17,771)	4,901	955	54
Income and mining taxes	(1,181)	279	17,267	(6,042)	1,836	336	
Earnings (loss) for the year before other items	<u>\$ 6,443</u>	<u>\$ (5,492)</u>	<u>\$ 17,597</u>	<u>\$ (11,729)</u>	<u>\$ 3,065</u>	<u>\$ 619</u>	<u>\$ 53</u>
Falconbridge's interest in above earnings (loss) after consolidation adjustments (note 3)	<u>\$ 6,443</u>	<u>\$ (5,492)</u>	<u>\$ 7,498</u>	<u>\$ (6,596)</u>	<u>\$ 2,027</u>	<u>\$ 405</u>	<u>\$ 55</u>
WORKING CAPITAL (note 5):							
Current assets	\$ 232,915		\$ 65,807	\$ 56,155	\$ 17,566	\$ 4,479	\$ 6,18
Current liabilities	<u>77,386</u>		<u>20,282</u>	<u>11,577</u>	<u>9,299</u>	<u>2,410</u>	<u>2,36</u>
	<u>\$ 155,529</u>		<u>\$ 45,525</u>	<u>\$ 44,578</u>	<u>\$ 8,267</u>	<u>\$ 2,069</u>	<u>\$ 3,82</u>
PROPERTY, PLANT AND EQUIPMENT (notes 3 and 6):							
Producing assets, at net book value —							
Plant and equipment	\$ 146,543		\$ 5,125	\$ 89,204	\$ 17,016	\$ 4,438	\$ 3,39
Land and properties	3,753		2,796	1,943	929	108	
Development and preproduction expenditures	52,124		5,351	31,554	434	509	1,42
	<u>\$ 202,420</u>		<u>\$ 13,272</u>	<u>\$ 122,701</u>	<u>\$ 18,379</u>	<u>\$ 5,055</u>	<u>\$ 4,81</u>
Non-producing assets, at cost less amounts written off	<u>\$ 31,071</u>		<u>\$ 16,437</u>		<u>\$ 632</u>		
PRINCIPAL PRODUCTS	Nickel, copper and cobalt		Copper, zinc and precious metals	Ferronickel	Industrial minerals and metal castings	Copper	Iron and copper
PRINCIPAL LOCATION OF ASSETS	Ontario and Norway		Quebec and Ontario	Dominican Republic	Ontario, Quebec and U.S.A.	South West Africa	British Columbia
MARKET VALUE OF FALCONBRIDGE'S SHAREHOLDINGS (note 7)			<u>\$ 43,940</u>		<u>\$ 11,284</u>		

(See notes to statement of supplementary information)

STATEMENT 4

December 31, 1977

	Consolidated total (after adjustments) (note 3)	Integrated nickel operations (100%) (note 2)	Unallocated corporate (100%) (note 2)	Falconbridge Copper Limited (50.2%) (note 3)	Falconbridge Dominicana, C. por A. (65.7%) (note 3)	Indusmin Limited (69.0%)	Oamites Mining Company (Proprietary) Limited (74.9%)	Wesfrob Mines Limited (100%)	Other	Consolidated total (after adjustments) (note 3)
2,095	\$ 508,211	\$118,867	\$ 1,892	\$ 107,455	\$ 98,962	\$ 42,442	\$ 10,494	\$ 8,298	\$ 986	\$ 381,684
883	376,492	92,004		85,180	65,980	31,279	9,005	9,120	563	288,943
597	29,932	10,473	3,575	624	2,913	4,774	1,139	119	782	22,686
	11,731	7,306		3,736	2,851	24	116	278		13,808
297	29,182	13,869	530	4,548	7,414	2,543	944	442	45	31,239
	3,503	10,912	7,221		385					18,518
1,777	450,840	134,564	11,326	94,088	79,543	38,620	11,204	9,959	1,390	375,194
318	57,371	(15,697)	(9,434)	13,367	19,419	3,822	(710)	(1,661)	(404)	6,490
(30)	25,622	6,546	3,265	(996)	12,785	691	(17)		(36)	22,247
333	7,662	2,979	4,086	1,463	75	25		555	543	9,726
	3,086	3,784				103				3,844
303	36,370	13,309	7,351	467	12,860	819	(17)	555	507	35,817
15	21,001	(29,006)	(16,785)	12,900	6,559	3,003	(693)	(2,216)	(911)	(29,327)
785	4,548		5,444	14		72			342	5,789
800	25,549	(29,006)	(11,341)	12,914	6,559	3,075	(693)	(2,216)	(569)	(23,538)
163	12,621	(7,377)	18	5,304	1,862	1,004	(244)	1	45	58
637	\$ 12,928	\$(21,629)	\$(11,359)	\$ 7,610	\$ 4,697	\$ 2,071	\$(449)	\$(2,217)	\$(614)	\$ (23,596)
664	\$ 5,500	\$(21,629)	\$(11,359)	\$ 2,913	\$ 2,788	\$ 1,251	\$(336)	\$(2,211)	\$(640)	\$ (29,223)
1,887	\$ 348,939	\$ 257,982		\$ 42,129	\$ 64,778	\$ 16,456	\$ 4,035	\$ 5,369	\$ 1,163	\$ 372,379
645	97,451	86,824		9,433	21,993	10,840	2,652	3,270	353	119,968
1,242	\$ 251,488	\$ 171,158		\$ 32,696	\$ 42,785	\$ 5,616	\$ 1,383	\$ 2,099	\$ 810	\$ 252,411
541	\$ 266,263	\$ 68,890		\$ 7,718	\$ 96,036	\$ 18,075	\$ 5,022	\$ 4,055	\$ 386	\$ 200,182
417	9,946	3,965		1,062	1,971	961	129		2	8,090
	91,392	51,068		8,520	33,895	464	608	1,941		96,496
958	\$ 367,601	\$ 123,923		\$ 17,300	\$ 131,902	\$ 19,500	\$ 5,759	\$ 5,996	\$ 388	\$ 304,768
0,773	\$ 88,913	\$ 96,397		\$ 12,251		\$ 643			\$ 41,065	\$ 150,356
		Nickel, copper and cobalt		Copper, zinc and precious metals	Ferronickel	Industrial minerals and metal castings	Copper	Iron and copper		
		Ontario and Norway		Quebec and Ontario	Dominican Republic	Ontario, Quebec and U.S.A.	South West Africa	British Columbia		
5,786	\$ 71,010			\$ 30,921		\$ 8,161			\$ 12,701	\$ 51,783

FALCONBRIDGE NICKEL MINES LIMITED

NOTES TO STATEMENT OF SUPPLEMENTARY INFORMATION

DECEMBER 31, 1978

1. Translation of foreign currencies

Foreign currency items have been translated into Canadian dollars as explained in note B of the accounting policies on page 15.

2. Integrated nickel operations and Unallocated corporate

Included under the caption "Integrated nickel operations" are the accounts of the Company and all its wholly-owned subsidiaries engaged in the integrated operations of mining, milling, smelting, refining and marketing of nickel mainly derived from Canadian ore. The Integrated nickel's production operations are interdependent and are carried on in Canada (mainly mining and reducing ore to matte at Sudbury) and in Norway (matte refining). The Marketing Division is structured to serve worldwide markets. That portion of the Company's net corporate expenditures relating to the overall direction and management of other activities of the Falconbridge group of companies and income from investment in associated and other companies have been segregated under the caption "Unallocated corporate". It is not practicable to segregate certain of the Integrated nickel operations and the Company's corporate balance sheet items.

3. Consolidation adjustments

Adjustments have been made on consolidation as follows:

(a) Fair value adjustments

The difference between the interest in the book value of the net assets of a consolidated subsidiary and the carrying value of the investment is accounted for as explained in note A (ii) of the accounting policies on page 15.

The investment in consolidated subsidiaries is \$11,072,000 less than the equity in net assets of these subsidiaries at December 31, 1978 (\$13,943,000 at December 31, 1977) and this difference is included in the consolidated balance sheet as follows:

Increase (decrease)	1978	1977
	(000's)	(000's)
Property, plant and equipment —		
Producing assets		
Plant and equipment	\$ (660)	\$ (659)
Accumulated depreciation	(425)	(400)
Land and properties	6,505	4,103
Accumulated depletion	4,308	4,107
Development and preproduction expenditures	(10,664)	(12,052)
Accumulated amortization	(3,314)	(4,199)
Non-producing assets	(6,614)	(6,457)
Investment in associated and other companies	67	46
Other	863	584
Excess of interest in net assets of subsidiaries over carrying value of investments	<u>\$ (11,072)</u>	<u>\$ (13,943)</u>

The depreciation, depletion and amortization of the fair value adjustments included in the consolidated statement of earnings increased the 1978 depreciation and depletion expense by a net \$34,000 (1977 — \$712,000) and decreased the 1978 and 1977 development and preproduction expenditures by \$504,000 each. (See (b) below).

(b) Falconbridge Copper Limited

The fair value adjustment associated with the Company's investment in Falconbridge Copper Limited was fully depleted in 1978 by a charge to earnings of \$59,000 (1977 — \$737,000).

(c) Falconbridge Dominicana, C. por A. (Falcondo)

The ferronickel produced by Falcondo is purchased and marketed by Falconbridge. The earnings of Falcondo include profits on all ferronickel sold to Falconbridge whereas consolidated earnings exclude the profits relating to inventories of ferronickel held by Falconbridge at December 31, for subsequent resale to customers.

(d) Other inter-company transactions have been adjusted to prevent duplication.

4. Interest in consolidated subsidiary companies' undistributed earnings

Falconbridge's share of its consolidated subsidiary companies' undistributed earnings at December 31, 1978 (included in its retained earnings) amounted to \$33,878,000 (1977 — \$37,743,000).

5. Working capital

See note 10, page 22, of the notes to consolidated financial statements for particulars of funds held in trust in respect of Falcondo.

6. Property, plant and equipment

See note 9, page 21, of the notes to consolidated financial statements.

7. Market value of Falconbridge's shareholdings

The market values shown are based on Canadian stock exchanges' closing bid prices on December 29, 1978 and December 30, 1977. Because of the number of shares held by Falconbridge (representing control of the companies concerned), the amounts that could be realized if these securities were to be sold may be more or less than their indicated quoted market value.

STATEMENT OF INVESTMENT IN ASSOCIATED AND OTHER COMPANIES

	Shares			Carrying value		Contribution to earnings
	Shares of common stock	Beneficial interest	Market value (note 1)	Shares (note 2)	Bonds, notes and advances	
			(000's)	(000's)	(000's)	(000's)
December 31, 1978:						
Akaitcho Yellowknife Gold Mines Limited	1,198,230	36.7%	\$ 851	\$ 232		\$ 60
Canadian Superior Oil Ltd.	294,143	3.2	22,796	17,465		
Dickstone Copper Mines Ltd.	517,725	27.2	62			
Giant Yellowknife Mines Limited	824,413	19.2	9,172	3,799		412
McIntyre Mines Limited	175,825	7.2	4,308	10,175		88
The Superior Oil Company (note 3)	14,000	0.3	5,462	3,118		40
Thompson-Lundmark Gold Mines Limited	600,000	12.0	177	377		
United Keno Hill Mines Ltd. (note 2)	1,195,989	48.4	9,568	8,267		1,825
Other companies			82			
			<u>\$ 52,478</u>	<u>43,433</u>		<u>2,425</u>
Investments with no quoted market value —						
Western Platinum Limited	2,500,001	25.0		6,214	\$ 5,224	1,008
Other companies				344	27	1,115
				<u>\$ 49,991</u>	<u>\$ 5,251</u>	<u>\$ 4,548</u>
				<u>\$ 55,242</u>		
December 31, 1977:						
Akaitcho Yellowknife Gold Mines Limited	1,198,230	36.7%	\$ 1,378	\$ 232		\$ 60
Alminex Limited (investment sold in 1977)						3,776
Canadian Superior Oil Ltd.	294,143	3.3	17,465	17,465		
Dickstone Copper Mines Ltd.	517,725	27.2	67			
Dunraine Mines Limited	1,068,558	48.6	64	59	\$ 73	
Giant Yellowknife Mines Limited	824,413	19.2	8,557	3,799		124
McIntyre Mines Limited	175,825	7.2	4,506	10,175		176
The Superior Oil Company (note 3)	14,000	0.3	3,570	3,118		28
Thompson-Lundmark Gold Mines Limited	600,000	12.0	174	377		
United Keno Hill Mines Ltd. (note 2)	1,195,989	48.4	10,022	7,279		1,168
Other companies			66			
			<u>\$ 45,869</u>	<u>42,504</u>	<u>73</u>	<u>5,332</u>
Investments with no quoted market value —						
Western Platinum Limited	2,500,001	25.0		6,214	5,224	
Other companies				345	30	457
				<u>\$ 49,063</u>	<u>\$ 5,327</u>	<u>\$ 5,789</u>
				<u>\$ 54,390</u>		

- Notes: 1. The market values shown are based on Canadian and United States of America stock exchanges' closing bid prices on December 29, 1978 and December 30, 1977. Because of the number of shares involved the amounts that could be realized if these securities were to be sold may be more or less than their indicated quoted market value.
2. The carrying value represents the cost of the investments less amounts written off, and also reflects the interest in earnings of United Keno Hill Mines Limited which is accounted for on an equity basis (i.e. the investment is carried on the balance sheet at cost plus proportionate share of undistributed earnings).
3. The increase in 1978 market value, compared to 1977, includes unrealized exchange gains on conversion to Canadian currency.

FALCONBRIDGE NICKEL MINES LIMITED

SUMMARY OF 1978 CONSOLIDATED RESULTS BY QUARTERS

(Unaudited — 000's omitted)

	1978					
	Three months ended					
	March 31	June 30	Sept. 30	Dec. 31	Year	1977
Metal sales (pounds):						
Integrated nickel operations —						
Nickel	13,746	20,977	15,800	20,818	71,341	32,047
Copper	6,647	7,096	6,381	9,903	30,027	42,677
Cobalt	389	254	236	376	1,255	1,494
Falconbridge Copper Limited —						
Copper	22,196	20,522	22,831	22,006	87,555	92,369
Zinc	19,060	23,550	20,219	22,508	85,337	89,032
Falconbridge Nickel Mines Limited (note 1) —						
Ferronickel (sales to customers)	5,919	12,344	8,964	16,250	43,477	43,394
Inventory of finished nickel — all forms						
(pounds):	78,487	65,340	56,450	44,009	44,009	78,262
Earnings:						
Revenues from metals and other products	\$ 93,012	\$ 129,508	\$ 123,907	\$ 161,784	\$ 508,211	\$ 381,684
Interest and investment income	3,092	2,301	2,650	4,573	12,616	11,763
	<u>96,104</u>	<u>131,809</u>	<u>126,557</u>	<u>166,357</u>	<u>520,827</u>	<u>393,447</u>
Costs other than the undermentioned	78,123	105,683	99,826	122,792	406,424	311,629
Depreciation, depletion, development and preproduction written off	9,534	9,516	9,857	12,006	40,913	45,047
Other charges (note 2)			3,503		3,503	18,518
Exploration, research and process development	2,601	2,392	2,718	3,037	10,748	13,570
Interest and amortization of debt expenses	7,874	8,249	8,234	9,333	33,690	28,221
Income and mining taxes	391	2,689	7,053	2,488	12,621	58
Minority interest in earnings of subsidiaries	238	1,352	2,441	3,397	7,428	5,627
	<u>98,761</u>	<u>129,881</u>	<u>133,632</u>	<u>153,053</u>	<u>515,327</u>	<u>422,670</u>
Earnings (loss) for the period before extraordinary item	(2,657)	1,928	(7,075)	13,304	5,500	(29,223)
Gain on sale of Alminex Limited shareholdings (net)..						20,238
Earnings (loss) for the period	(2,657)	1,928	(7,075)	13,304	5,500	(8,985)
Dividend requirement on preference shares	1,052	1,143	1,198	1,339	4,732	1,692
Earnings (loss) applicable to convertible shares	<u>\$ (3,709)</u>	<u>\$ 785</u>	<u>\$ (8,273)</u>	<u>\$ 11,965</u>	<u>\$ 768</u>	<u>\$ (10,677)</u>
Earnings (loss) per convertible share:						
Before extraordinary item	<u>(75)¢</u>	<u>16¢</u>	<u>\$ (1.67)</u>	<u>\$ 2.41</u>	<u>15¢</u>	<u>\$ (6.23)</u>
For the period	<u>(75)¢</u>	<u>16¢</u>	<u>\$ (1.67)</u>	<u>\$ 2.41</u>	<u>15¢</u>	<u>\$ (2.15)</u>
Earnings (loss) contributions (note 2):						
Alminex Limited (note 3)						\$ 3,776
Falconbridge Copper Limited	\$ 471	\$ 1,128	\$ 3,044	\$ 2,855	\$ 7,498	2,913
Falconbridge Dominicana, C. por A.	(1,144)	(1,007)	(3,406)	(1,039)	(6,596)	2,788
Indusmin Limited	118	642	616	651	2,027	1,251
Oamites Mining Company (Proprietary) Limited	(87)	182	(17)	327	405	(336)
United Keno Hill Mines Limited (note 3)	445	329	226	825	1,825	1,168
Wesrob Mines Limited	(127)	247	(106)	537	551	(2,211)
Other controlled companies	121	70	229	244	664	(640)
Total	(203)	1,591	586	4,400	6,374	8,709
Unallocated corporate (net) (note 3)	<u>(1,768)</u>	<u>(1,945)</u>	<u>(2,632)</u>	<u>(972)</u>	<u>(7,317)</u>	<u>(16,303)</u>
	(1,971)	(354)	(2,046)	3,428	(943)	(7,594)
Integrated nickel operations, net of allocated corporate costs	(686)	2,282	(5,029)	9,876	6,443	(21,629)
Earnings (loss) for the period before extraordinary item	(2,657)	1,928	(7,075)	13,304	5,500	(29,223)
Gain on sale of Alminex Limited shareholdings (net)..						20,238
Earnings (loss) for the period	(2,657)	1,928	(7,075)	13,304	5,500	(8,985)
Dividend requirement on preference shares	1,052	1,143	1,198	1,339	4,732	1,692
Earnings (loss) applicable to convertible shares	<u>\$ (3,709)</u>	<u>\$ 785</u>	<u>\$ (8,273)</u>	<u>\$ 11,965</u>	<u>\$ 768</u>	<u>\$ (10,677)</u>

Notes:

1. See note 3, page 28, of the notes to statement of supplementary information.
2. Includes the items detailed in note 2, page 20, of the notes to consolidated financial statements.
3. Unallocated corporate shown on Statement 4, page 26, is after reflecting the interest in earnings of Alminex Limited and United Keno Hill Mines Limited, which are accounted for on the equity basis.

FALCONBRIDGE NICKEL MINES LIMITED

TEN-YEAR REVIEW (unaudited)

		1978	1977	1976	1975	1974	1973	1972	1971	1970	1969
EARNINGS (LOSS) (000's)	Revenues	\$ 508,211	381,684	483,480	409,888	443,508	426,834	266,851	204,407	214,315	186,030
	Earnings (loss) (before extraordinary item)	\$ 5,500	(29,223)	14,703	3,221	30,595	49,343	5,165	17,468	42,190	46,890
	Per convertible share (note 1)	\$ 0.15	(6.23)	2.96	0.65	6.17	9.96	1.04	3.52	8.52	9.53
	Extraordinary item	\$ 20,238					7,100	(49,456)		(475)	669
	Per convertible share (note 1)	\$ 4.08					1.43	(9.98)		(0.10)	0.14
EARNINGS (LOSS) CONTRIBUTIONS — after consolidation adjustments, before extraordinary items (000's)	Unallocated corporate (note 6)	\$ (7,317)	(16,303)	(5,717)	(4,352)	(2,688)	(2,711)	(3,402)			
	Alminex Limited (note 9)	\$ 3,776	3,424	2,952	2,922	2,040	1,263				
	Falconbridge Copper Limited	\$ 7,498	2,913	1,637	198	3,981	12,295	3,058			
	Falconbridge Dominicana, C. por A.	\$ (6,596)	2,788	8,834	5,689	3,309	9,933	503			
	Indusmin Limited (note 7)	\$ 2,027	1,251	2,019	2,821	1,307	1,287	1,290			
	Integrated nickel operations	\$ 6,443	(21,629)	4,727	(5,390)	16,395	19,425	5,118			
	Oamites Mining Company (Prop.) Limited	\$ 405	(336)	128	739	1,433	2,406	205			
	United Keno Hill Mines Limited	\$ 1,825	1,168	841	1,422	2,946	1,159	(350)			
	Wesfrob Mines Limited	\$ 551	(2,211)	(337)	(1,361)	539	2,753	(2,490)			
	Others (note 7)	\$ 664	(640)	(853)	503	451	756	(30)			
	Earnings (loss) (before extraordinary item)	\$ 5,500	(29,223)	14,703	3,221	30,595	49,343	5,165			
FINANCIAL POSITION (000's)	Working capital —										
	Integrated nickel operations (note 8)	\$ 155,529	171,158	82,461	98,816	137,163	116,582	71,137	67,611		
	Falconbridge Dominicana, C. por A. (note 2)	\$ 44,578	42,785	37,410	33,703	28,941	36,214	25,680	26,601		
	Falconbridge Copper Limited	\$ 45,525	32,696	24,409	20,768	18,840	25,776	14,044	15,340		
	Consolidated total	\$ 251,488	252,411	152,083	164,102	195,467	186,640	113,463	117,954		
	Property, plant and equipment (net) —										
	Producing	\$ 367,601	304,768	255,217	283,611	282,803	303,767	330,965	160,132		
	Non-producing	\$ 88,913	150,356	167,654	143,178	137,504	105,021	86,507	312,799		
SHAREHOLDERS' DATA	Long-term debt	\$ 295,003	291,394	223,715	255,121	274,616	288,493	301,921	293,336		
	Shareholders' equity (000's)	\$ 384,255	383,127	321,249	311,433	312,437	291,887	242,099	289,832		
	Amount per convertible share	\$ 61.55	61.50	64.13	62.21	62.47	58.37	48.42	57.97		
	Dividends paid per convertible share	\$ 0.50	0.50	1.00	1.00	2.00	1.00	1.00	2.75	3.50	3.50
	Number of convertible shares outstanding at end of year (note 3) (000's)	5,024	5,010	5,009	5,006	5,001	5,001	5,000	5,000	4,955	4,946
	Number of convertible shareholders	8,351	9,150	9,788	10,732	11,205	11,104	12,254	12,178	12,273	12,687
	Preference shares (000's)	\$ 75,000	75,000								
	Dividends paid per preference share	\$ 1.577	0.564								
EXPLORATION, RESEARCH AND DEVELOPMENT (000's)	Exploration	\$ 7,662	9,726	8,325	7,826	11,432	8,895	6,768	10,246	9,307	6,036
	Research and development	\$ 3,086	3,844	3,769	4,100	4,382	3,304	2,546	3,311	4,208	2,683
CAPITAL EXPENDITURES (000's)	Expenditures (net) on property, plant, equipment, development and preproduction —										
	Integrated nickel operations (note 8)	\$ 26,695	62,267	27,954	38,161	30,442	21,156	36,717	59,474	51,567	37,245
	Falconbridge Dominicana, C. por A. ..RD\$	722	2,908	1,490	1,934	5,571	2,123	10,400	67,887	67,540	17,774
	Falconbridge Copper Limited (note 4) ..	\$ 4,956	5,415	8,903	7,400	14,968	9,076	3,910	5,968	4,946	1,778
	Consolidated total	\$ 41,105	78,848	44,188	56,367	59,315	40,632	61,804	144,862		
METAL SALES (000's pounds)	Integrated nickel operations —										
	Nickel	71,341	32,047	80,176	61,524	89,464	99,408	89,665	85,864	84,141	80,647
	Copper	30,027	42,677	34,076	40,713	53,981	53,725	56,464	60,985	56,922	49,456
	Falconbridge Nickel Mines Limited —										
	Nickel in ferronickel (note 5)	43,477	43,394	59,781	50,270	73,828	67,644				
	Falconbridge Copper Limited (note 4) ..										
	Copper	87,555	92,369	82,939	77,503	56,911	80,935	80,870	62,012	50,320	52,752
ORE RESERVES (000's tons)	Zinc	85,337	89,032	73,430	73,767	30,838	37,950	38,218	14,569	10,648	12,249
	Falconbridge Nickel Mines Limited	78,808	80,670	83,405	89,099	90,578	92,798	92,646	99,933	97,405	94,217
	Falconbridge Dominicana, C. por A.	68,500	70,000	72,500	63,700	66,000	68,500	70,800	72,300	62,800	62,800
	Falconbridge Copper Limited (note 4)	9,235	8,653	7,187	9,234	11,004	11,287	11,724	11,543	9,777	7,921

- Notes:
1. See note 7, page 21, of the notes to consolidated financial statements.
 2. See note 10, page 22, of the notes to consolidated financial statements.
 3. Includes shares held by consolidated subsidiaries.
 4. This company was formed through an amalgamation of a number of companies in 1971. For comparative purposes the figures have been presented as if the amalgamation had been in effect throughout 1969 to 1971.
 5. Ferronickel sales to customers, see note 3, page 28, of the notes to statement of supplementary information.
 6. Before interest in earnings of Alminex Limited and United Keno Hill Mines Limited which are shown separately.
 7. For comparative purposes the 1972 to 1975 figures have been restated to combine the contribution of Indusmin Limited and Fahrallloy Canada Limited. In 1976, Fahrmet Limited, a subsidiary of Indusmin Limited acquired the operating assets of Fahrallloy Canada Limited.
 8. Includes both the integrated nickel operations and Company's corporate operations, see note 2, page 28, of the notes to statement of supplementary information.
 9. Investment sold in 1977.

FALCONBRIDGE NICKEL MINES LIMITED

ACCOUNTING FOR INFLATION (unaudited)

The following unaudited replacement cost data, which were extracted from the Company's 1978 United States of America's Securities and Exchange Commission (S.E.C.) Form 10-K filing, reflect the estimated current replacement cost of inventories and productive capacity of certain of the Falconbridge group companies compared with the historic cost of these assets at December 31, 1978 and 1977.

Because of the subjectivity and inherent imprecision of the estimated replacement cost data they should only be viewed as indicative of the order of magnitude of the impact of inflation.

(a) Inventories (000's)

	Integrated nickel operations	Other subsidiary companies	Total
December 31, 1978			
Inventory of metals:			
Historic cost	\$ 72,704	\$ 11,777	\$ 84,481
Replacement cost	\$ 106,760	\$ 14,921	\$ 121,681
Inventory of supplies:			
Historic cost—			
Total	\$ 12,481	\$ 21,068	\$ 33,549
Deduct:			
Slow moving and capital items	1,800	125	1,925
Consumables	\$ 10,681	\$ 20,943	\$ 31,624
Replacement cost — Consumables	\$ 12,597	\$ 21,036	\$ 33,633
December 31, 1977			
Inventory of metals:			
Historic cost	\$ 107,857	\$ 27,248	\$ 135,105
Replacement cost	\$ 151,242	\$ 33,914	\$ 185,156
Inventory of supplies:			
Historic cost —			
Total	\$ 13,628	\$ 19,578	\$ 33,206
Deduct:			
Slow moving and capital items	1,705	149	1,854
Consumables	\$ 11,923	\$ 19,429	\$ 31,352
Replacement cost — Consumables	\$ 12,706	\$ 20,183	\$ 32,889

(b) Productive capacity (000's)

		Historic Cost		
	Total in the consolidated balance sheet	Amounts for which replace- ment cost data have not been provided (i)	Amounts for which replace- ment cost data have been provided (ii)	Estimated replacement cost (ii)
December 31, 1978				
Property, plant and equipment:				
Producing assets —				
Plant and equipment at cost	\$ 598,055	\$ 79,463	\$ 518,592	\$1,176,345
Accumulated depreciation	\$ 331,792	\$ 66,415	\$ 265,377	\$ 608,446
December 31, 1977				
Property, plant and equipment:				
Producing assets —				
Plant and equipment at cost	\$ 509,332	\$ 78,451	\$ 430,881	\$ 979,852
Accumulated depreciation	\$ 309,150	\$ 61,656	\$ 247,494	\$ 574,359

(i) Generally represents the assets of subsidiaries' operating mines which are expected to have short (10 years or less) remaining productive lives.

ACCOUNTING FOR INFLATION (unaudited) (continued)

		Plant and equipment, at cost	Accumulated depreciation	Plant and equipment, net
(ii) Estimated replacement cost —				
December 31, 1978				
Integrated nickel operations —				
Historic cost	\$	331,401	\$	184,858
Replacement cost		727,833		416,579
* Other subsidiaries —				
Historic cost		187,191		80,519
Replacement cost		448,512		191,867
Total —				
Historic cost	\$	518,592	\$	265,377
Replacement cost	\$	1,176,345	\$	608,446
December 31, 1977				
Integrated nickel operations —				
Historic cost	\$	245,954	\$	177,064
Replacement cost		595,520		427,477
* Other subsidiaries —				
Historic cost		184,927		70,430
Replacement cost		384,332		146,882
Total —				
Historic cost	\$	430,881	\$	247,494
Replacement cost	\$	979,852	\$	574,359

*Falconbridge Dominicana, C. por A.; Indusmin Limited; and Lakefield Research of Canada Limited.

To arrive at replacement cost of productive fixed assets, current estimates of costs to construct or purchase were applied or other methods such as calculating replacement cost based on cost per unit of productive capacity were employed. Indices published by governmental and private organizations were applied to the historic cost of recently acquired assets.

- (c) Depreciation expense for 1978 and 1977 which would have been recorded if it were estimated on the basis of the average current replacement cost of productive capacity is as follows:

		Depreciation expenses (iv)	
		Historic cost basis	Replacement cost basis
		(ii)	(iii)
		(000's)	
December 31, 1978			
Total charged to earnings	\$	28,124	
Deduct amounts related to assets for which replacement cost data have not been provided		5,114	
Amounts related to assets for which replacement cost data have been provided (i)	\$	23,010	\$ 55,599
December 31, 1977			
Total charged to earnings	\$	32,297	
Deduct amounts related to assets for which replacement cost data have not been provided		5,344	
Amounts related to assets for which replacement cost data have been provided (i)	\$	26,953	\$ 68,441
(i) December 31, 1978 —			
Integrated nickel operations	\$	12,345	\$ 29,726
* Other subsidiaries		10,665	25,873
Total	\$	23,010	\$ 55,599
December 31, 1977 —			
Integrated nickel operations	\$	16,860	\$ 48,752
* Other subsidiaries		10,093	19,689
Total	\$	26,953	\$ 68,441

*Falconbridge Dominicana, C. por A.; Indusmin Limited; and Lakefield Research of Canada Limited.

(ii) The method of calculation is detailed under note E of the accounting policies on page 15.

(iii) Calculated using a straight-line method.

(iv) The higher estimated depreciation expense under the productive capacity replacement cost basis would probably be partially offset by operational economies.

- (d) The difference between the replacement value and historic value of cost of sales is immaterial. Under the "last-in, first-out" method of costing the inventory current costs are reflected in the consolidated statement of earnings for the Integrated nickel operations. The other subsidiaries generally recognize revenues when metals are produced (consequently, the recorded revenues are matched with current costs) or have immaterial product inventories or differences between replacement and historic cost of sales.

The following pages present a more detailed review of the Integrated Nickel Operations and marketing activities of the Company during 1978. Also included are operating and financial data and commentary thereon for the following major subsidiary and associated companies:

Falconbridge Dominicana, C. por A.

Falconbridge Copper Limited

Indusmin Limited

New Quebec Raglan Mines Limited

Giant Yellowknife Mines Limited

Wesfrob Mines Limited

United Keno Hill Mines Limited

Western Platinum Limited

Oamites Mining Company (Proprietary) Limited

Blanket Mine (Private) Limited

THE INTEGRATED NICKEL OPERATIONS

Earnings

The Integrated Nickel Operations contributed a profit of \$6,443,000 in 1978 compared with a loss of \$21,629,000 in 1977. The turnaround resulted primarily from increased nickel sales and improved prices for cobalt. Sales of nickel totalled 71,341,000 pounds, an increase of 123 per cent over the 32,047,000 pounds sold in 1977. Copper sales, however, decreased by 30 per cent from 42,677,000 pounds in 1977 to 30,027,000 pounds in 1978 because of the reduced level of production at the Sudbury mines. This shortfall was offset to some extent by higher prices received for the metal. Although cobalt sales were below the 1977 level, the substantial increase in price during 1978 more than offset the drop in sales and added significantly to the improved results. The continuing decline in the Canadian dollar relative to the United States dollar also had a favourable influence on earnings.

Costs totalling \$3,503,000, incurred during the extended vacation shutdown at Norway and Sudbury, are included in 1978 operating expenses compared with \$10,912,000 of other charges to earnings in 1977. Lower depreciation, depletion and amortization write-offs reflect the July 1, 1977 change in amortization rates resulting from a revision in the estimated economic lives of assets. Amortization of the new smelter environmental improvement project at Sudbury commenced in September 1978.

Operating Review

General

The Sudbury Operations' program to reduce the level of production to approximately 50 per cent of capacity was completed during the first half of the year. The scheduled extended vacation shut-down of operations took effect as planned beginning in July, with only one of the two lines in the new smelter operating during the first phase of the start-up program. The level of

employment in 1978 was reduced by approximately 20 per cent, from 3,623 employees at January 1 to 2,884 at year end.

The collective agreement with the production and maintenance workers represented by the Sudbury Mine, Mill and Smelter Workers' Union, Local 598, terminated on August 21, 1978. A new agreement, retroactive to that date, was signed on November 28, 1978. It will remain in effect for three years, with annual "re-opener" provisions for re-negotiation of certain of the monetary items.

The Company entered into an agreement with Inco Limited under which the remaining ore reserve of its Fecunis Mine was exchanged for a portion of Inco's Lower Coleman orebody, adjacent to the workings of the Company's Strathcona Mine.

Government Legislation

The Ontario Government has recently amended the Regulations to the Ontario Mining Tax Act to allow the Company to continue to deduct the operating costs of its refinery in Norway in computing profits subject to Ontario Mining Tax. The previous Regulations permitted the Company to deduct such costs only to December 31, 1978. During the year, discussions with the Ontario Government continued regarding legislation concerned with refining in Canada.

Capital Programs

There were three main capital programs in 1978. The Smelter Environmental Improvement Program was substantially completed at a cost of \$78,794,000 of which \$12,817,000 was incurred during 1978. Expenditures on the Fraser Mine development program, which continued at a reduced pace, amounted to \$4,546,000 for the year. The Company constructed and placed in operation a new \$2,800,000 tailings disposal and waste water treatment system at Falconbridge to meet Ministry of Environment guidelines.

Expenditures (net) on mines and plants for 1978 with comparative figures for 1977 are set out in the table below:

	1978	1977
Property, plant and equipment	\$17,379,000	\$48,504,000
Development and preproduction	9,316,000	13,763,000
	<u>\$26,695,000</u>	<u>\$62,267,000</u>

The Smelter Environmental Improvement Program

The new smelting and acid plant facilities provided under the Smelter Environmental Improvement Program became operational prior to the extended vacation shut-down. They have replaced the old sinter-blast furnace system since production was resumed in August. The operation of these new facilities has progressed satisfactorily.

Ore Treatment

During the year 2,283,000 tons were delivered to treatment plants from the Company's mines in the Sudbury area compared with 2,865,000 tons in 1977. Early in 1978 the North and Lockerby Mines were temporarily closed and placed on stand-by. The East and Onaping Mines have been on stand-by since 1975. The Strathcona and Falconbridge Mines were operated at full production during the year, while Strathcona and Falconbridge mills were on a five-day-week schedule.

The first production from the copper zone of the Strathcona Mine occurred in 1978, with the mining of 24,000 tons of ore grading 0.68 per cent nickel and 10.8 per cent copper. At year end this zone, which has not yet been delineated at depth, contained proven reserves of 850,000 tons grading 0.52 per cent nickel and 8.9 per cent copper. Present plans call for the mining of this orebody over a period of eight years.

Falconbridge Nikkelverk Aktieselskap

The production of refined metals was below capacity in 1978 due to the high level of inventory at the beginning of the year. The refinery was shut down for five weeks during the summer months and was cut-back from a five-day to a four-day-week throughout the year. The section of the plant which produces granular nickel was shut down for ten months of 1978.

Two new fluid-bed roasters were brought into service and the last of the old Herreshof roasters was shut down permanently. This change in technology led to a substantial improvement in working conditions and operating efficiency.

A new two-year collective agreement became effective on April 1, 1978. The agreement provides for an interim wage adjustment, through collective bargaining, after one year.

Ore Reserves

Total proven and probable reserves at the Company's Sudbury Operations were reduced during the year. The marginal ore removed from reserves because of increased costs and lower nickel prices, and the ore consumed in processing, were partially replaced by new additions to the reserves.

The following figures include appropriate allowance for dilution in mining:

Year	Tons of Ore	Tons of Contained Metal		Average Grade (%)	
		Nickel	Copper	Nickel	Copper
1978	78,808,000	1,162,000	611,000	1.47	0.78
1977	80,670,000	1,177,000	624,000	1.46	0.77



Iconbridge "Granular Nickel" is
preferred as a charge component in
steelmaking shops and foundries.

MARKETING ACTIVITIES

FALCONBRIDGE INTERNATIONAL LIMITED

MARKETING REVIEW

Nickel

Nickel demand improved in 1978. Shipments by non-Communist world producers were approximately 1,100,000,000 pounds compared with 925,000,000 pounds in 1977, an increase of 20 per cent. The rise in demand together with production cutbacks resulted in a substantial decrease in producer inventories. By year end, producer inventories declined to an estimated 635,000,000 pounds compared with 812,000,000 pounds at the end of 1977. Consumer inventories worldwide remain at low levels, well below the excessive inventories which accumulated in 1975 and 1976.

In the United States, nickel consumption was close to record levels in the stainless and high nickel alloy industries. An upturn in the aircraft, automotive and transportation industries in the last half of 1978 has continued into 1979. In Europe, general economic conditions improved, slowly gaining strength as the year progressed. Stainless steel production continued to improve, particularly in Germany.

Elsewhere, new markets for Falconbridge metal have been developed and existing markets expanded. In India, Latin American countries and Korea, nickel sales are encouraging.

The highly competitive conditions experienced over the past two years practically eliminated profitable nickel production. In 1978, prices industry-wide continued to decline.

To improve its competitive strength, Falconbridge has committed significant research and development effort to bring several new product forms to market. Product innovations such as Falconbridge Nickel Crowns, an improved form of electrolytic nickel for plating applications and Falconbridge Ferrocones, a small cast ferronickel shape designed for use by the stainless steel and foundry industries, will ensure the Company's full market participation when the industry returns to higher production levels.

Copper

It is estimated that non-Communist world refined copper consumption rose by approximately 4 per cent in 1978. There was significant turnaround in the copper market in 1978 with consumption reaching the highest level ever experienced in the industry. The result was a material reduction in refined metal stocks by year-end 1978. The outlook for 1979 indicates another production shortfall with a further reduction in metal stocks. Prices in 1979 are forecast to increase significantly over those realized in 1978.

Other metals

Included among other metals extracted and sold by the Company are cobalt, gold, silver and platinum group metals which at current selling prices are a significant source of revenues.

The cobalt producer's price was increased several times during 1978 from U.S. \$6.40 per pound at the beginning of the year to U.S. \$20.00 per pound at the end of the year. Late in 1978, the Company began to toll refine cobalt-containing feed materials at the refinery in Norway.

Gold and silver prices improved sharply over 1977 levels due to uncertainty in the currency markets. Platinum group metal markets and prices continued to improve due, in part, to the withdrawal of Russian supplies and speculation concerning the United States dollar.

Commercial Services

In addition to marketing nickel, ferronickel, copper, cobalt, precious metals and various by-products, Falconbridge International Limited and the other commercial organizations in the Falconbridge Group negotiate feed purchase and toll refining contracts covering a variety of ferrous and non-ferrous metal concentrates and precious metals. Products handled include copper, cobalt, nickel, zinc, lead and iron ore concentrates, and semi-refined precious metal materials as well as refined gold and platinum group metals. A severe shortage of cobalt developed during

1978. Falconbridge International was able to provide additional cobalt through the successful negotiation of several purchases and toll refining agreements for cobalt-containing feeds. New areas of commercial interest are also being investigated by the Marketing group.

Other marketing support to the Falconbridge Group during the year included product and market research, technical services, transportation and distribution management and marketing communications.

Organization

The Falconbridge commercial and marketing companies include Falconbridge International Limited based in Hamilton, Bermuda; Falconbridge U.S. Incorporated in Pittsburgh; Falconbridge Europe, S.A. in Brussels, Belgium; and Falconbridge Canada, the Canadian Marketing Division of the Company. These organizations, strategically located in or near large nickel consuming centres, achieved improved market share through 1978.

Management

Falconbridge International Limited

President	W. G. Dahl
Executive Vice-President	E. H. Holm

Falconbridge Canada

Canadian Marketing Division of
Falconbridge Nickel Mines Limited

President	M. O. Pearce
Vice-President Sales	T. J. Desanti

Falconbridge U.S. Incorporated

General Manager	R. W. Bain
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Falconbridge Europe, S.A.

General Manager	J. H. Lilly
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Falconbridge Dominicana, C. por A.

The Company's operations were reduced in January 1978 to a single electric furnace line and remained at this level throughout the year. Restricting the rate of production enabled the Company to reduce its product inventory substantially; however, the effect on unit cost, coupled with a reduced net realized price and the impact of foreign exchange adjustments, resulted in a net loss of RD \$12,311,000 for the year (RD \$1.00 equals U.S. \$1.00 at the official rate of exchange). This compares with net earnings of RD \$3,242,000 in 1977.

Demand for ferronickel recovered somewhat from the depressed levels which prevailed in the second half of 1977, but further reduction of inventory by consumers and the ready availability of alternate steelmaking charge materials resulted in extremely competitive marketing conditions. Total shipments in 1978 were 43,562,000 pounds of contained nickel compared with 45,477,000 pounds in 1977.

During the year the Company entered into a Supplemental Indenture to its financing agreements with the Institutional Lenders. In consideration of an increase in the interest rate from 8.5 per cent to 8.73 per cent on the Series C demand mortgage notes, the semi-annual principal payments due in 1978 and 1979, aggregating U.S. \$15,240,000, have been deferred. Commencing in 1981, this deferment will become due in twelve semi-annual instalments of U.S. \$1,270,000, in addition to the regularly scheduled principal repayments. A Canadian chartered bank also agreed to provide the Company, until December 31, 1981, with a term credit facility in the maximum amount of the Dominican Republic peso equivalent of U.S. \$5,000,000. The Company has not yet availed itself of this facility.

The long-term debt at December 31, 1978 was RD \$121,167,000, exclusive of RD \$3,413,000 which matures in 1979 and is shown as a current liability. The long-term debt includes an unrealized loss of RD \$6,909,000 resulting from the conversion of the non-U.S. portion of the loan from the International Bank for Reconstruction and Development (World Bank) at 1978 year-end exchange rates. Of this amount, RD \$2,364,000 was charged to expense in 1978 and the balance in previous years.

All operating units in the mine and process plant continued to perform satisfactorily. Operational control improvements introduced during the year helped greatly to cushion the full impact of the cost escalation normally associated

with operating at reduced capacity. Continued effort is being directed towards improving efficiency and increasing productivity in order to contain the escalating cost of energy and other inflationary effects. The Company continues to stress its concern for safety, training and protection of the environment. The rehabilitation and reforestation of mined-out areas has received international recognition.

Expenditures on property, plant and equipment in 1978 were RD \$722,000.

The ore reserves at the end of 1978 were 68,500,000 dry short tons grading 1.64 per cent nickel.

The total work force at year end was 1,594 employees of whom 1,538 were Dominican and 56 were expatriate personnel. This compares with a 1977 year end total of 2,107 of whom 83 were expatriates.

	As at December 31, 1978	
	Outstanding	Held by Falconbridge
Capitalization		
Common shares	3,000,000	1,971,524 65.7%
Production	Year ended December 31	
	1978	1977
Shipments of ferronickel — nickel content in pounds	43,562,000	45,477,000
Financial (RD \$1.00 equals U.S. \$1.00)		
Revenue from metal shipments	RD\$ 78,459,000	RD\$ 94,552,000*
Earnings before interest on debt, depreciation and amortization	2,742,000	25,395,000
Earnings (loss) after all charges	(12,311,000)	3,242,000
Working capital	37,593,000	39,097,000
Long-term debt (1978 excludes RD\$3,413,000 in current liabilities; 1977 excludes RD\$10,522,000)	121,167,000	113,941,000
* Restated		
Falconbridge interest* in		Per share of Falconbridge
Loss after all charges	Cdn.\$ 7,706,000	\$1.53
* Before consolidation adjustments		
Management		
President	Marsh A. Cooper	
Executive Vice-President	Ian H. Keith	
Vice-President and General Manager	W. W. Dales	

Falconbridge Copper Limited

Net earnings for the year of \$15,058,000 were \$7,757,000 higher than in 1977, reflecting higher metal prices and greater efficiency. Working capital increased by \$12,829,000 after payment of dividends of \$2,594,000, fixed asset additions of \$1,861,000, preproduction expenditures of \$3,095,000, exploration and underground development of \$3,452,000 and the purchase of 330,000 shares in the capital of Sturgeon Lake Mines Limited for \$5,100,000.

Total metal production from all three divisions of the company was 87,555,000 pounds of copper, 85,337,000 pounds of zinc, 63,000 ounces of gold and 2,492,000 ounces of silver. Copper production decreased by 4,814,000 pounds from 1977, zinc by 3,695,000 pounds and silver by 210,000 ounces. Gold production increased by 22,000 ounces.

Lake Dufault Division

Operating profit for the year at the Lake Dufault Division was \$10,272,000 or \$5,749,000 higher than in 1977, primarily because of increased prices for copper and zinc.

Tonnage milled totalled 411,000 tons of 3.36 per cent copper and 3.85 per cent zinc compared with 430,000 tons of 3.27 per cent copper and 3.74 per cent zinc in 1977. Production in 1978 of 26,282,000 pounds of copper and 25,447,000 pounds of zinc was slightly lower than in 1977. Silver production at 388,000 ounces was 8 per cent higher. Operating costs of \$9,321,000 were held at the same level as in 1977. Preproduction expenditures on the Corbet Mine amounted to \$11,305,000 at December 31, 1978, of which \$3,095,000 was incurred during the year. This mine is expected to commence production during the latter part of 1979.

Ore reserves at the end of 1978 were calculated to be 3,706,000 tons (including 2,929,000 tons in the Corbet Mine) with average grades of 3.08 per cent copper and 2.6 per cent zinc.

Opemiska Division

The Opemiska Division achieved an operating profit of \$9,891,000 compared with a loss of \$254,000 in 1977, due to substantial increases in copper and gold prices, increased gold production and greater operating efficiencies. The first full year of production was achieved in 1978 from the Cooke Mine where the gold content of the ore is significantly higher than at the Company's other mines.

Ore milled totalled 1,067,000 tons, 45,000 tons more than in 1977. Copper production in 1978 of 40,747,000 pounds was at the same level as in 1977; silver production increased by 17,000 ounces to 359,000 ounces; and gold production increased by 23,000 ounces in the year to 50,000 ounces.

Ore reserves at December 31, 1978 for the Springer, Perry and Cooke Mines totalled 4,930,000 tons grading 1.85 per cent copper compared with 3,764,000 tons grading 2.44 per cent copper at the end of 1977. This significant increase in ore reserve tonnage is due to the inclusion of a large block of low-grade mineralization at the Springer Mine which can be mined at low cost by a large-scale, blast-hole method.

Sturgeon Lake Joint Venture

Throughout 1978, Falconbridge Copper's interest in the joint venture was 67 per cent, comprising a direct interest of 13.4 per cent and an indirect interest of 53.6 per cent through its 67 per cent ownership of Sturgeon Lake Mines Limited. The latter company has an 80 per cent direct interest in the joint venture. On December 28, 1978, Falconbridge Copper purchased the remaining 33 per cent of the shares of Sturgeon Lake Mines Limited from NBU Mines Limited. Thereupon Sturgeon Lake Mines Limited was wound up with Falconbridge Copper assuming its liabilities and assets. Accordingly, at

December 31, 1978, Falconbridge Copper's direct interest in the joint venture was 93.4 per cent.

The profit of the joint venture in 1978 was \$18,036,000, an increase of \$5,144,000 over that of 1977, with Falconbridge Copper's share after all charges, amounting to \$3,989,000. The profit increase was due to higher metal prices which more than offset the lower production.

The Company's share of the joint venture operating profit during 1978 was greatly reduced compared to 1977. During 1977, the Company received 93.4% of the joint venture proceeds until recoupment of the preproduction financing during November of that year. After recoupment, during the remainder of 1977 and until December 28, 1978, the Company received 67% of the joint venture proceeds.

Tonnage milled was 408,000 tons, down 15,000 tons from 1977. Production in 1978 at Sturgeon Lake was 21,977,000 pounds of copper, 64,122,000 pounds of zinc, 1,869,000 ounces of silver, 3,144,000 pounds of lead and 5,500 ounces of gold. Production in 1977 was 27,292,000 pounds of copper, 67,824,000 pounds of zinc, 2,152,000 ounces of silver, 3,824,000 pounds of lead and 6,900 ounces of gold.

Ore reserves at December 31, 1978 were 599,000 tons grading 2.34 per cent copper, 8.98 per cent zinc, 1.30 per cent lead, 5.17 ounces of silver and 0.016 ounce of gold per ton.

	As at December 31, 1978		
	Outstanding	Held by Falconbridge	
Capitalization			
Common shares	12,970,125	6,509,696	50.2%
Financial	Year ended December 31		
	1978	1977	
Revenue from metal shipments	\$132,429,000	\$107,455,000	
Earnings before amortization and depreciation	22,045,000	13,850,000	
Income and mining taxes	17,267,000	5,304,000	
Earnings after all charges	15,058,000	7,301,000	
Dividends paid	2,594,000	1,297,000	
Working capital	45,525,000	32,696,000	
Falconbridge interest* in			Per share of Falconbridge
Earnings after all charges	\$ 7,559,000		\$1.51
Dividends paid	1,302,000		0.26
Excess of earnings over dividends	\$ 6,257,000		\$1.25

* Before consolidation adjustments

Management

Chairman of the Board	Marsh A. Cooper
President and Chief Executive Officer	L. C. Kilburn
Manager, Opemiska Division	P. P. Dessureault
Manager, Lake Dufault Division	W. R. Wright
Manager, Sturgeon Lake Joint Venture	H. R. Graham

Indusmin Limited

Sales at \$46,686,000 established a new record. Strong performance at all industrial mineral operations offset an 8 per cent decline in sales of steel castings by Fahramet Limited. Limestone aggregates sales remained flat because of the low levels of construction activity prevailing throughout the year.

After-tax consolidated net earnings in 1978 were \$3,042,000, exceeding by 5 per cent the record set in 1976, and an improvement of 48.5 per cent over 1977. Fahramet Limited provided a profit of \$481,000 compared with a loss of \$182,000 in 1977. Lawson-United Feldspar and Mineral Company also added to profits since it was included for the full year 1978 but only six months in 1977.

During 1978 emphasis was placed on consolidating current operations and reducing the debt load; consequently, no major capital programs were undertaken. Silica and nepheline syenite operations are working virtually at capacity and orders for Fahramet castings have improved significantly. This has provided support for the resumption of engineering and planning for expansion and modernization programs in both Minerals and Castings Divisions.

It is expected that 1979 sales and earnings will exceed those of 1978 as markets for the Company's products remain strong.

	As at December 31, 1978		
	Outstanding	Held by Falconbridge	
Capitalization			
Common shares	1,167,901	806,030	69%
Financial (Consolidated)	Year ended December 31		
	1978	1977	
Sales	\$46,686,000	\$42,442,000	
Earnings before amortization and depreciation	5,973,000	4,615,000	
Earnings after all charges	3,042,000	2,048,000	
Dividends paid — 90¢ per share	1,051,000		
— 85¢ per share		993,000	
Working capital	8,267,000	5,616,000	
Falconbridge interest* in			Per share of Falconbridge
Earnings after all charges	\$ 2,099,000		42¢
Dividends paid	725,000		15
Excess of earnings over dividends	\$ 1,374,000		27¢
*Before consolidation adjustments			

Management

President and Managing Director	Ian H. Keith
Executive Vice-President	C. M. Woodruff

New Quebec Raglan Mines Limited

The Company's wholly-owned subsidiary, Raglan Quebec Mines Limited, holds exploration permits covering 300 square miles and 157 mineral claims located in the Ungava region of Quebec.

In 1978 compilation of data from the 1977 airborne survey was completed. No further exploration was carried out on the property in the year.

Expenditures to date on the properties have amounted to \$28,524,000. Because of the world's current oversupply of nickel, it cannot be predicted with certainty when such expenditures on the properties will be recovered by charges against income from future mining operations.

Estimated ore reserves are 16,050,000 tons grading 2.58 per cent nickel and 0.71 per cent copper.

	As at December 31, 1978		
	Outstanding	Held by Falconbridge	
Capitalization			
New Quebec Raglan Mines Limited			
Common shares	7,763,891*	5,300,087*	68.3%
Raglan Quebec Mines Limited			
Preferred shares — 6%	7,500,000	7,500,000	100%
— 8%	7,500,000	7,500,000	100%
— 6¾%	2,395,916**	2,395,916**	100%
Common shares	4,055***		
* Includes 20 common shares to be issued			
** Includes 742 6¾% preferred shares to be issued			
*** Wholly-owned by New Quebec Raglan Mines Limited			

Management

President	L. C. Kilburn
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Giant Yellowknife Mines Limited

A sharp increase in gold price during 1978 increased revenues from \$17,365,000 in 1977 to an all-time high of \$21,948,000 even though production levels and bullion output were lower than in the prior year. Average price received for gold rose from \$164 per ounce in 1977 to \$233 in 1978. Net earnings were \$3,731,000 compared with \$2,451,000 in 1977.

Production from Giant Yellowknife Mines Limited and its subsidiaries, Lolor Mines Limited and Supercrest Mines Limited, fell to 397,000 tons from a record 446,000 tons in 1977. The decrease was due in part to a planned shut-down of one week for repairs to the roaster stack, and another week at half production because of a classifier breakdown. Mechanical problems with other equipment and power outages were also contributing factors. The open pits provided 27 per cent of the mill feed compared with 41 per cent in 1977, reflecting a scheduled reduction to provide a more balanced utilization of open pit and underground ore reserves.

The average grade of ore mined was 0.271 ounce of gold per ton, the same as in 1977. Treatment plant recovery of 88.75 per cent was improved over the 87.73 per cent recovered in 1977. Emissions from the roaster were successfully reduced.

Overall costs were up because of the greater proportion of underground production, stepped-up drilling, development and exploration work in response to the higher gold price, more plant and equipment maintenance, and increased environmental work. Significant price increases for power, oil and supplies and a new labour contract, also added to expenditures.

Ore reserves as of December 31, 1978 were 1,216,000 tons at 0.27 ounce of gold per ton compared with 1,004,000 tons at 0.34 ounce of gold per ton at December 31, 1977. The much higher gold price enabled additions of low grade material and served as an incentive to launch drill programs in previously abandoned areas of the mine. New reserves added by diamond drilling totalled 144,000 tons.

Exploration drilling at depth on the Giant property and to the north continued. No values were obtained at depth; however, some encouragement

was received to the north on Supercrest ground where ore grades were encountered over narrow widths. Four holes were completed on the Northbelt property and these cut favourable schists. Follow-up drilling is required at depth and on the Supercrest and Northbelt properties.

The tempo of outside exploration was increased as a result of improved earnings, with emphasis being placed on gold and uranium. Nine projects were undertaken, of which four were completed with negative results. Follow-up work is required on the remaining five.

	As at December 31, 1978		
	Outstanding	Held by Falconbridge	
Capitalization			
Common shares	4,303,050	824,413	19.2%
	Year ended December 31		
	1978	1977	
Production (Consolidated)			
Tons milled	397,000	446,000	
Gold produced — ounces	95,000	106,000	

Financial (Consolidated)		
Revenue from metals produced	\$21,948,000	\$17,365,000
Earnings before amortization and depreciation	4,455,000	3,339,000
Earnings after all charges	3,731,000	2,451,000
Dividends paid — 50¢ per share	2,152,000	
— 15¢ per share		645,000
Working capital	10,754,000	8,838,000

Falconbridge interest* in		Per share of Falconbridge
Earnings after all charges	\$ 715,000	14¢
Dividends paid	412,000	8
Excess of earnings over dividends	\$ 303,000	6¢

*Only dividends received by Falconbridge are reflected in consolidated earnings

Management

President and Managing Director	D. J. Emery
General Manager	W. A. Moore

Wesfrob Mines Limited

Net earnings for the year were \$538,000 compared with a net loss of \$2,217,000 in 1977. Earnings in 1977 were adversely affected by a two-month shutdown of mining and milling operations due to a strike at a major customer's plant. Operations resumed in mid-January 1978.

Virtually all ore production, 893,000 metric tons, was from the underground mine as the open pits which had supplied all the Wesfrob ore since the start of production in 1967 were exhausted. Production of iron concentrates in 1978 amounted to 508,000 metric tons compared with 425,000 metric tons in 1977. Production of copper increased by 3,063,000 pounds to 5,769,000 pounds in 1978. The plant operated at approximately 79 per cent of capacity in 1978, which was sufficient to meet sales demand.

	As at December 31, 1978		
	Outstanding	Held by Falconbridge	
Capitalization			
Common shares	3,832,994	3,832,994	100%
	Year ended December 31		
	1978	1977	
Production			
Iron concentrates — dry metric tons	508,000	425,000	
Copper concentrates — dry metric tons	13,000	6,000	
Copper in concentrate — pounds	5,769,000	2,706,000	

Financial		
Revenues from metals produced	\$13,222,000	\$8,298,000
Earnings (loss) before amortization and depreciation	1,956,000	(1,507,000)
Earnings (loss) for the period	538,000	(2,217,000)
Working capital	3,828,000	2,099,000

Management

President	P. L. Munro
Mine Manager	C. L. Stafford

United Keno Hill Mines Limited

Earnings for 1978 were \$3,769,000, up by \$1,357,000 from 1977. Revenue from metal shipments increased by \$4,763,000 as the average revenue received of \$6.67 per ounce of silver was \$1.47 per ounce higher than 1977. A substantial increase in revenue from lead sales was also recorded, due in part to sharply higher production and higher prices.

Operating costs were \$2,178,000 higher than in 1977. The major increases were for higher wages, power costs, mining development activity — particularly with the new open pit operations — and operating costs incurred by the cyanide plant which was re-activated in 1978.

Only a minor amount of zinc concentrate was produced in 1978 as heavy smelter deductions and treatment charges coupled with increased transportation charges made production of this material uneconomical.

Development at the Ruby Mine is on schedule after completion of a 2500 ft. adit to reach the vein. A minor amount of ore was mined in late 1978. The Ruby will be an important producer in 1979.

A 1500 ft. cross cut on 700 level in the Keno Mine reached the target in late 1978. This drive was made to investigate ore encountered in 1977 drifting on the 18 vein on 400 level. While the full

potential of this zone has not been determined, the ore zone is not expected to be extensive.

Total ore reserves increased in 1978 to 246,000 tons grading 31 ounces of silver per ton. At year end 1977, reserves were

126,000 tons grading 40 ounces per ton. The 1978 figure includes 99,000 tons of proven ore grading 22 ounces of silver per ton from the Birmingham open pit. Underground ore reserves declined from 126,000 tons to 110,000 tons grading 40 ounces per ton.

Capitalization	As at December 31, 1978		
	Outstanding	Held by Falconbridge	
Common shares	2,470,000	1,195,989	48.4%

Production	Year ended December 31	
	1978	1977
Tons ore milled	90,000	91,000
Ounces silver produced	2,738,000	2,784,000
Pounds lead produced	7,521,000	5,911,000
Pounds zinc produced	18,000	451,000

Financial		
Revenue from metal shipments	\$21,623,000	\$16,860,000
Earnings before amortization and depreciation	4,338,000	2,805,000
Net earnings	3,769,000	2,412,000
Dividends paid — 70¢ per share	1,729,000	
— 60¢ per share		1,482,000
Working capital	16,684,000	15,429,000

Falconbridge interest* in			Per share of Falconbridge
Earnings after all charges	\$ 1,825,000		36¢
Dividends paid	837,000		16
Excess of earnings over dividends	\$ 988,000		20¢

* Accounted for on the equity basis.

Management

President and Managing Director	P. L. Munro
Mine Manager	G. S. Dundas

Western Platinum Limited

The profit for the year amounted to R3,120,000 compared with a loss of R475,000 in 1977. Revenue from metal sales amounted to R25,405,000, an increase of 24 per cent over 1977 revenue, reflecting the higher prices received for precious metals in 1978.

Early in 1978 the throughput rate and capital expenditures for development and replacement were reduced due to the strained cash position caused by operating losses and the increased level of nickel inventories in 1977. The No. 1 shaft and Western belt incline sections were closed and operations were confined to the Noel Shaft and East incline sections. As precious metal prices improved, the Company's cash position eased and the throughput rate and development activities were increased. Ore milled in 1978 amounted to 1,057,000 metric tons, down 247,000 metric tons from 1977. Capital expenditures of R152,000 were incurred mainly on development and ancillary underground equipment. With the lower scale of operations, significant improvements in efficiencies were achieved as reflected in the financial results.

In September, 1978 the Company commenced payment of arrears of interest on its loans from shareholders. Payment of R400,000 was made in September and further payments of R2,600,000 were made by December, 1978.

Development sampling results continued to improve, averaging 4.98 grams of platinum per ton over 95 centimeters. Investigations are continuing into the possibility of extracting platinum group metals prior to the shipment of matte.

Capitalization	As at September 30, 1978		
	Outstanding	Held by Falconbridge	
Ordinary shares	10,000,000	2,500,001	25%
Long term debt	R17,800,000	R4,450,000	25%

Production	Year ended September 30	
	1978	1977
Tons milled — metric	1,057,000	1,304,000
Platinum group metals — ounces	113,000	131,000
Nickel — pounds	3,047,000	3,617,000

Financial

1 Rand = Cdn. \$1.37 at September 30, 1978 = Cdn. \$1.24 at September 30, 1977		
Revenue from metal sales	R25,405,000	R20,455,000
Earnings (loss) for the year	3,120,000	(475,000)
Working capital	13,451,000	9,546,000

Management

Joint Managing Directors	S. C. Newman R. W. Banghart
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MAJOR SUBSIDIARY AND ASSOCIATED COMPANIES

Oamites Mining Company (Proprietary) Limited

The Company earned a profit in 1978 of \$619,000 compared with a loss in 1977 of \$449,000, while maintaining approximately the same level of production. A sharp restraint in operating costs and higher metal prices accounted for this marked improvement.

Proven and probable ore reserves at December 31, 1978 amounted to 2,127,000 metric tons, grading 1.18 per cent copper and 16.25 grams of silver per metric ton, a decrease of 1,407,000 metric tons from 1977. This decrease in ore reserves is attributed to narrower ore width and lower grade at depth.

As the copper grade of the mine decreases with depth, the possibilities of discovering a new "pay shoot" of suitable size and grade are receding. The life of the mine is highly sensitive to metal prices and in future years Oamites will produce progressively less copper as grades decrease and mining becomes more difficult.

	As at December 31, 1978		
	Outstanding	Held by Falconbridge	
Capitalization			
Common shares	253,680	190,000	74.9%
	Year ended December 31		
	1978	1977	
Production			
Tons ore milled (metric)	615,000	620,000	
Mill head grade (% copper)	1.22	1.20	
Mill recovery (%)	92.28	92.52	
Concentrates produced (dry metric tons)	17,000	17,000	
Recoverable copper — pounds	15,247,000	15,209,000	
Financial			
Revenue from sales of concentrates	\$13,380,000	\$10,494,000	
Earnings before amortization and depreciation	1,601,000	611,000	
Earnings (loss) after all charges	619,000	(449,000)	
Dividends paid	516,000	160,000	
Working capital	2,069,000	1,383,000	
Falconbridge interest* in			Per share of Falconbridge
Earnings after all charges	\$ 463,000		9¢
Dividends paid	386,000		8
Excess of earnings over dividends	\$ 77,000		1¢
*Before consolidation adjustments			
Management			
General Manager	R. W. Banghart		
Mine Manager	D. P. Hugo		

Blanket Mine (Private) Limited

Consolidated net earnings in 1978 were \$557,000 compared with \$545,000 in 1977. The effect of the higher price of gold, which in 1978 averaged U.S. \$187 per ounce compared with U.S. \$138 per ounce in 1977, was substantially offset by the loss incurred at R.H.A. Mines (Private) Limited and lower gold production which decreased from 18,400 ounces in 1977 to 16,300 ounces in 1978.

Tonnage milled in 1978 at the Blanket Mine was marginally lower than in the previous year. However, the decrease in gold production was due primarily to a drop in grade from 4.52 grams to 3.99 grams per ton. While the mining of the lower grade ore became economic with the improved price of gold, there was a shortage of skilled technicians to cope with higher grade areas of the mine. Gold production in 1979 is unlikely to exceed 16,000 ounces.

The R.H.A. Tungsten Mine was developed to the point where the generation of underground mineral reserves justified improvements to the mill and the establishment of a full scale mining operation. As it was impossible to obtain sufficient technical staff, the development work at the site and production were suspended indefinitely.

The future of these operations will depend on political stability in Rhodesia and the availability of technical staff.

	As at December 31, 1978		
	Outstanding	Held by Falconbridge	
Capitalization			
Common shares	9,208	9,208	100%
	Year ended December 31		
	1978	1977	
Production			
Blanket			
Ore milled — tons (metric)	153,000	154,000	
Gold produced — ounces	16,300	18,400	
RHA			
Ore milled — tons (metric)	17,000	50,000	
Tungsten concentrates — pounds	65,000	90,000	
Financial			(Canadian dollars)
Net revenue from metals produced	\$3,789,000	\$3,348,000	
Earnings before depreciation	760,000	727,000	
Earnings after all charges	557,000	545,000	
Dividends paid	785,000	320,000	
Working capital	571,000	593,000	
Falconbridge interest* in			Per share of Falconbridge
Earnings after all charges	\$ 557,000		11¢
Dividends paid	785,000		16
Excess of dividends paid over earnings	\$ 228,000		5¢
*Only dividends received by Falconbridge are reflected in consolidated earnings.			
Management			
Mine Manager	D. Shand		

FALCONBRIDGE



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